

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<p>SPRINT COMMUNICATIONS COMPANY LP., <i>Plaintiff,</i></p> <p style="text-align: center;">v.</p> <p>CHARTER COMMUNICATIONS, INC., <i>et al.</i>, <i>Defendants.</i></p>	<p>C.A. No. 17-1734-RGA</p> <p>PUBLIC VERSION</p>
<p>SPRINT COMMUNICATIONS COMPANY LP., <i>Plaintiff,</i></p> <p style="text-align: center;">v.</p> <p>MEDIACOM COMMUNICATIONS CORP., <i>Defendants.</i></p>	<p>C.A. No. 17-1736-RGA</p> <p>PUBLIC VERSION</p>
<p>SPRINT COMMUNICATIONS COMPANY LP., <i>Plaintiff,</i></p> <p style="text-align: center;">v.</p> <p>WIDEOPENWEST, INC. <i>et al.</i>, <i>Defendants.</i></p>	<p>C.A. No. 18-361-RGA</p> <p>PUBLIC VERSION</p>
<p>SPRINT COMMUNICATIONS COMPANY LP., <i>Plaintiff,</i></p> <p style="text-align: center;">v.</p> <p>ATLANTIC BROADBAND FINANCE, LLC <i>et al.</i>, <i>Defendants.</i></p>	<p>C.A. No. 18-362-RGA</p> <p>PUBLIC VERSION</p>
<p>SPRINT COMMUNICATIONS COMPANY LP., <i>Plaintiff,</i></p> <p style="text-align: center;">v.</p> <p>GRANDE COMMUNICATIONS NETWORKS, LLC <i>et al.</i>, <i>Defendants.</i></p>	<p>C.A. No. 18-363-RGA</p> <p>PUBLIC VERSION</p>

**DECLARATION OF KELLY E. FARNAN IN SUPPORT OF CHARTER’S AND
DEFENDANTS’ OPPOSITION TO SPRINT’S MOTIONS FOR SUMMARY
JUDGMENT AND MOTIONS TO EXCLUDE EXPERT TESTIMONY UNDER
DAUBERT**

I, Kelly E. Farnan, declare as follows:

1. I am an attorney at Richards, Layton & Finger, P.A. representing Defendants Charter Communications, Inc., Charter Communications Holdings, LLC, Spectrum Management Holding Company, LLC, Charter Communications Operating LLC and Bright House Networks, LLC in C.A. No. 17-1734-RGA. I offer this declaration in support of Defendants' Opening Brief in Support of Its Motion for Summary Judgment and Motion to Exclude Expert Testimony Under *Daubert*.

2. Attached hereto as Exhibit 1 is the Declaration of Kirill Abramov in Support of Charter's Brief in Opposition to Sprint's Motion for Partial Summary Judgment Regarding Collateral Estoppel and Equitable Defenses.

3. Attached hereto as Exhibit 2 are excerpts from the Complaint, docketed at D.I. 1 in *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Dec. 19, 2011).

4. Attached hereto as Exhibit 3 are excerpts from the Pretrial Order, docketed at D.I. 859 in *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. July 24, 2015).

5. Attached hereto as Exhibit 4 are excerpts from the Third Amended Scheduling Order, docketed at D.I. 525 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Dec. 12, 2014), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Dec. 12, 2014), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Dec. 12, 2014).

6. Attached hereto as Exhibit 5 are excerpts from the Second Amended Scheduling Order, docketed at D.I. 348 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Aug. 12, 2014), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Aug. 12, 2014), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Aug. 12, 2014).

7. Attached hereto as Exhibit 6 are excerpts from the Amended Scheduling Order, docketed at D.I. 168 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Dec. 19, 2013), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Dec. 19, 2013), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Dec. 19, 2013).

8. Attached hereto as Exhibit 7 are excerpts from the Scheduling Order, docketed at D.I. 69 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Apr. 15, 2013), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Apr. 15, 2013), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Apr. 15, 2013).

9. Attached hereto as Exhibit 8 are excerpts from the Memorandum Order, docketed at D.I. 917 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Oct. 8, 2015), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Oct. 8, 2015), and *Sprint Communications*

Company, L.P. v. Comcast Cable Communications, LLC., 11-2684 KHV/DJW (D. Kans. Oct. 8, 2015).

10. Attached hereto as Exhibit 9 are excerpts from the Pretrial Order, docketed at D.I. 123 in *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. July 24, 2015).

11. Attached hereto as Exhibit 10 are excerpts from the Order, docketed at D.I. 926 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Oct. 5, 2016), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Oct. 5, 2016), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Oct. 5, 2016).

12. Attached hereto as Exhibit 11 is the Declaration of Cody Harrison in Support of Charter's Brief in Opposition to Sprint's Motion for Partial Summary Judgment Regarding Collateral Estoppel and Equitable Defenses.

13. Attached hereto as Exhibit 12 are excerpts from the deposition transcript of Paul S. Min, Ph.D., taken on June 19, 2015 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans.), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans.), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans.).

14. Attached hereto as Exhibit 13 are excerpts from the Expert Report of Zygmunt J. Haas Regarding Invalidity of in U.S. Patent Nos. 6,452,932, 6,463,052, 6,633,561, 7,286,561, 7,505,454, 6,343,084, 6,473,429, 6,298,064, 7,327,728, 6,330,224, 6,697,340, 6,563,918 dated March 20, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

15. Attached hereto as Exhibit 14 are excerpts from the Reply Expert Report of Dr. Henry H. Hough Regarding Invalidity of in U.S. Patent Nos. 6,452,932, 6,463,052, 6,633,561, 7,286,561, 7,505,454, 6,343,084, 6,473,429, 6,298,064, 7,327,728, 6,330,224, 6,697,340 dated June 12, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

16. Attached hereto as Exhibit 15 are excerpts from the Expert Report of Dr. Kevin Almeroth Regarding Invalidity dated March 20, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

17. Attached hereto as Exhibit 16 are excerpts from U.S. Patent No. 6,633,561.

18. Attached hereto as Exhibit 17 are excerpts from the Memorandum Order, docketed at D.I. 98 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Oct. 9, 2014), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Oct. 9, 2014), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Oct. 9, 2014).

19. Attached hereto as Exhibit 18 are excerpts from the Reply Expert Report of Dr. Kevin Almeroth Regarding Invalidity dated May 15, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

20. Attached hereto as Exhibit 19 are excerpts from the Expert Report of Dr. Michael Frendo dated March 20, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

21. Attached hereto as Exhibit 20 are excerpts from the Reply Expert Report of Dr. Michael Frendo dated May 15, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

22. Attached hereto as Exhibit 21 are excerpts from the Jury Instructions, docketed at D.I. 447 in *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Mar. 3, 2017).

23. Attached hereto as Exhibit 22 are excerpts from the Transcript of Jury Trial Before the Honorable John W. Lungstrum, Senior United States District Court Judge, which occurred in *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans.).

24. Attached hereto as Exhibit 23 are excerpts from the Reply Expert Report of Dr. Stephen B. Wicker Regarding Infringement in Response to the Rebuttal Expert Report of Dr. Almeroth Dated April 24, 2020, and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

25. Attached hereto as Exhibit 24 are excerpts from the deposition transcript of Jay A. Gerstner, dated January 22, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

26. Attached hereto as Exhibit 25 are excerpts from the deposition transcript of Kent Mitchell, dated November 21, 2019 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

27. Attached hereto as Exhibit 26 are excerpts from the deposition transcript of Steven Contorno, dated December 17, 2019 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

28. Attached hereto as Exhibit 27 are excerpts from the Expert Report of Russell W. Mangum III, Ph.D., dated March 20, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

29. Attached hereto as Exhibit 28 are excerpts from the Expert Report of Dr. Stephen B. Wicker Regarding Infringement of U.S. Patent Nos. 6,452,932, 6,463,052, 6,633,561, 7,286,561, 7,505,454, 6,298,064, 6,343,084, 6,473,429, 7,327,728, 6,330,224, & 6,697,340, dated March 20, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic Broadband Finance, LLC., et al.*, 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

30. Attached hereto as Exhibit 29 are excerpts of the Declaration of Leonard J. Forys, Ph.D., docketed at D.I. 220 in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans. Apr. 5, 2014), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans. Apr. 5, 2014), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans. Apr. 5, 2014).

31. Attached hereto as Exhibit 30 are excerpts of the File History of U.S. Patent 5,825,780, produced at SPRIKS_02_00003487.

32. Attached hereto as Exhibit 31 are excerpts of U.S. Patent No. 6,633,561.

33. Attached hereto as Exhibit 32 are excerpts of the Utility Patent Application Transmittal, produced at SPRI_01_00002560.

34. Attached hereto as Exhibit 33 are excerpts from the deposition transcript of Michael Joseph Gardner dated March 26, 2015 and taken in the consolidated cases of *Sprint Communications Company, L.P. v. Time Warner Cable, Inc.*, 11-2686 JTM/KMH (D. Kans.), *Sprint Communications Company, L.P. v. Cable One, Inc.*, 11-2685 RDR/KGS (D. Kans.), and *Sprint Communications Company, L.P. v. Comcast Cable Communications, LLC.*, 11-2684 KHV/DJW (D. Kans.).

35. Attached hereto as Exhibit 34 are excerpts of U.S. Patent No. 6,991,301.

36. Attached hereto as Exhibit 35 are excerpts from the deposition transcript of Michael Joseph Gardner dated January 7, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

37. Attached hereto as Exhibit 36 are excerpts from the deposition transcript of Dr. Michael Frendo dated May 29, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

38. Attached hereto as Exhibit 37 are excerpts from the deposition transcript of William L. Wiley dated January 28, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic Broadband Finance, LLC., et al.*, 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

39. Attached hereto as Exhibit 38 are excerpts from the deposition transcript of William L. Wiley dated January 28, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic*

Broadband Finance, LLC., et al., 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

40. Attached hereto as Exhibit 39 are excerpts of a document titled “Broadband – Intelligent Network Prototype Project Authorization” produced at SPRp-01-029-00075.

41. Attached hereto as Exhibit 40 are excerpts of the File History of U.S. Patent 5,991,301, produced at SPRIKS_02_00004012.

42. Attached hereto as Exhibit 41 are excerpts of the U.S. Utility Patent Application, produced at SPRe-022-01-00939.

43. Attached hereto as Exhibit 42 are excerpts of a document titled “BBOSD-Lab-0001-02D” and produced at SPRe-008-01-06853.

44. Attached hereto as Exhibit 43 are excerpts from the deposition transcript of Michael Logan dated January 29, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

45. Attached hereto as Exhibit 44 are excerpts from the deposition transcript of Tom Moore dated January 21, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

46. Attached hereto as Exhibit 45 are excerpts of a document titled “Circuit Switching Analysis Update” and produced at SPRp-002-01-00718.

47. Attached hereto as Exhibit 46 are excerpts of a document titled “JCS2000 Reasons for Discontinuance” and produced at SPRp-016-01-00001.

48. Attached hereto as Exhibit 47 are excerpts from the deposition transcript of Douglas C. Shriver dated February 7, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

49. Attached hereto as Exhibit 48 are excerpts of a document titled “R&D Study” and produced at SPRp-026-01-00831.

50. Attached hereto as Exhibit 49 are excerpts of a document titled “R&D Study” and produced at SPRp-026-01-00723.

51. Attached hereto as Exhibit 50 are excerpts of a document titled “Phase II Questionnaire Qualification of Sample Dollars” and produced at EY-SPRINT-000001.

52. Attached hereto as Exhibit 51 are excerpts of an e-mail dated September 18, 2006 and produced at SPRi4_03_00126712.

53. Attached hereto as Exhibit 52 are excerpts of a document titled “Creating Value Together A BHN & Sprint Partnership Solution” dated June 22, 2006 and produced at SPRe-044-01-03252.0001.

54. Attached hereto as Exhibit 53 are excerpts of a document titled “Charter RFP Network Design Assumptions” dated February 16, 2004 and produced at SPRI4_03_00602929.

55. Attached hereto as Exhibit 54 are excerpts of a document titled “Creating Value Together” dated June 19, 2005 and produced at SPRe-046-01-71826.0001.

56. Attached hereto as Exhibit 55 is a copy of an e-mail, produced at SPRe-046-01-03176.0001, and dated August 15, 2005.

57. Attached hereto as Exhibit 56 is a copy of an e-mail, produced at SPRe-046-12195.0001, and dated January 4, 2006.

58. Attached hereto as Exhibit 57 are excerpts from the deposition transcript of Mark E. Chall dated December 19, 2019 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic Broadband Finance, LLC., et al.*, 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

59. Attached hereto as Exhibit 58 is a copy of an e-mail, produced at SPRe-046-01-45403.0001 and dated December 7, 2006.

60. Attached hereto as Exhibit 59 is a copy of a document titled “Charter & Sprint Opportunities” dated August 7, 2007 and produced at SPRIKS_07_00433676.

61. Attached hereto as Exhibit 60 is a copy of a document titled “Cable Solutions Team PMO Status Report” dated February 16, 2005 and produced at SPRe-046-01-04396.0001.

62. Attached hereto as Exhibit 61 is a copy of a document titled “Interconnection, Traffic Exchange, Transport and Termination Agreement” produced at CHARTER_SPRINT0817851.

63. Attached hereto as Exhibit 62 is a copy of a document titled “Time Warner Cable & Bright House Networks Go It Alone Status Discussion” dated October 15, 2009 and produced at CHARTER_SPRINT0373670.

64. Attached hereto as Exhibit 63 are excerpts from the deposition transcript of Andrew Greig dated February 5, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

65. Attached hereto as Exhibit 64 are excerpts from the deposition transcript of Scott Kalinoski dated January 15, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic Broadband Finance, LLC., et al.*, 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

66. Attached hereto as Exhibit 65 are excerpts from the deposition transcript of Harley R. Ball dated January 8, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA; *Sprint Communications Company L.P. v. Atlantic Broadband Finance, LLC., et al.*, 18-362-RGA; *Sprint Communications Company L.P. v. Mediacom Communications Corp.*, 17-1736-RGA; *Sprint Communications Company L.P. v. WideOpenWest, Inc. et al.*, 18-361-RGA; and *Sprint Communications Company L.P. v. Grande Communications, Networks, LLC, et al.*, 18-363-RGA.

67. Attached hereto as Exhibit 66 are excerpts from the deposition transcript of Cody Harrison dated January 30, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

68. Attached hereto as Exhibit 67 is a copy of an e-mail, produced at SPRI4_02_00061605, and dated December 17, 2007.

69. Attached hereto as Exhibit 68 is a copy of a letter, produced at CHARTER_SPRINT1060468, and dated January 25, 2010.

70. Attached hereto as Exhibit 69 is a copy of an e-mail, produced at CHARTER_SPRINT1036089, and dated April 20, 2010.

71. Attached hereto as Exhibit 70 are excerpts from Charter Defendants' Objections and Responses to Sprint's Second Set of Interrogatories (Nos. 9-15) dated April 17, 2019 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

72. Attached hereto as Exhibit 71 are excerpts from the Rebuttal Expert Report of Carla S. Mulhern, dated April 24, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

73. Attached hereto as Exhibit 73¹ are excerpts from an article titled, "Value Shares of Technologically Complex Products" by Jonathan D. Putnam and dated April 16, 2014.

74. Attached hereto as Exhibit 74 are excerpts from an article titled, "How Valuable is Patent Protection? Estimates by Technology Field" by Mark Schankerman and dated Spring, 1998.

75. Attached hereto as Exhibit 75 are excerpts from an article titled, "A Study of Patent Mortality Rates: Using Statistical Survival Analysis to Rate and Value Patent Assets" by Jonathan A. Barney and dated Summer 2002.

76. Attached hereto as Exhibit 76 are excerpts from an article titled, "Patents as Options: Some Estimates of the Value of Holding European Patent Stocks" by Ariel Pakes and dated July 1986.

77. Attached hereto as Exhibit 77 are excerpts from an article titled, "A dynamic stochastic analysis of international patent application and renewal processes" by Yi Deng and dated May 12, 2011.

¹ Exhibit 72 has been intentionally omitted.

78. Attached hereto as Exhibit 78 are excerpts from the Rebuttal Expert Report of Dr. Kevin Almeroth Regarding Non-Infringement, dated April 24, 2020 and submitted in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

79. Attached hereto as Exhibit 79 are excerpts from an article titled, “Technology policy for a world of skew-distributed outcomes” by F.M. Scherer and Dietmar Harhoff.

80. Attached hereto as Exhibit 80 are excerpts from the Rebuttal Expert Report of Robert Pedigo, dated April 24, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

81. Attached hereto as Exhibit 81 are excerpts from the deposition transcript of Russell W. Mangum III, Ph.D., taken on June 3, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

82. Attached hereto as Exhibit 82 are excerpts from the deposition transcript of Kevin C. Almeroth, Ph.D. taken on June 10, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

83. Attached hereto as Exhibit 83 are excerpts from the deposition transcript of Dr. Carla S. Mulhern taken on June 3, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

84. Attached hereto as Exhibit 84 are excerpts from the Parties’ Joint Proposed Final Pretrial Order – Volcano Trial, docketed at D.I. 386 in *St. Jude Medical, Cardiology Division, Inc., et al. v. Volcano Corporations*, 10-cv-00631-RGA-MPT (D. Del. Oct. 4, 2012).

85. Attached hereto as Exhibit 85 are excerpts from the deposition transcript of Dr. Stephen Wicker taken on May 28, 2020 in *Sprint Communications Company L.P. v. Charter Communications, Inc., et al.*, 17-1734-RGA.

86. Attached hereto as Exhibit 86 is an excerpt of U.S. Patent No. 4,733,665.

87. Attached hereto as Exhibit 87 is an excerpt of U.S. Patent No. 5,703,876.

I declare under penalty of perjury that the foregoing is true and correct.

/s/ Kelly E. Farnan
Kelly E. Farnan (#4395)

Dated: June 30, 2020

CERTIFICATE OF SERVICE

I hereby certify that on June 30, 2020, true and correct copies of the foregoing document were caused to be served on the following counsel of record as indicated:

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Kelly E. Farnan (#4395)

EXHIBIT 1

**REDACTED IN ITS
ENTIRETY**

EXHIBIT 2

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS**

SPRINT COMMUNICATIONS COMPANY L.P.,)
a Delaware Corporation)

Plaintiff,)

v.)

Case No. 11-cv-2686 JTM/KMH

TIME WARNER CABLE INC.,)
TIME WARNER CABLE LLC,)
TIME WARNER ENTERTAINMENT)
COMPANY, L.P., TIME WARNER)
ENTERTAINMENT-ADVANCE/NEWHOUSE)
PARTNERSHIP, TWC COMMUNICATIONS,)
LLC, TIME WARNER CABLE INFORMATION)
SERVICES (KANSAS), LLC,)

JURY TRIAL DEMANDED

Defendants.)

COMPLAINT

Plaintiff Sprint Communications Company L.P. complains as follows against defendants Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC.

PARTIES

1. Plaintiff Sprint Communications Company L.P. (“Sprint”) is a Limited Partnership organized and existing under the laws of the State of Delaware, with its principal place of business at 6200 Sprint Parkway, Overland Park, Kansas 66251.

2. On information and belief, defendant Time Warner Cable Inc. (“Time Warner”) is a Corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 600 Columbus Circle, New York, New York 10023.

3. On information and belief, defendant Time Warner Cable LLC (“Time Warner”) is a Limited Liability Company organized and existing under the laws of the State of Delaware, with its principal place of business at 600 Columbus Circle, New York, New York 10023.

4. On information and belief, defendant Time Warner Entertainment Company, L.P. is a Limited Partnership registered to do business in the state of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 600 Columbus Circle, New York, New York 10023 in care of Time Warner Cable Inc.

5. On information and belief, defendant Time Warner Entertainment-Advance/Newhouse Partnership is a partnership registered to do business in the State of Kansas and organized under the laws of the State of New York with its principal place of business at 600 Columbus Circle, New York, New York 10023 in care of Time Warner Cable Inc.

6. On information and belief, defendant TWC Communications, LLC is a Limited Liability Company registered to do business in the State of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 600 Columbus Circle, New York, New York 10023 in care of Time Warner Cable Inc.

7. On information and belief, defendant Time Warner Cable Information Services (Kansas), LLC is a Limited Liability Company registered to do business in the State of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 600 Columbus Circle, New York, New York 10023 in care of Time Warner Cable Inc.

8. On information and belief, Time Warner Cable Inc. is the direct or indirect parent of each of Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner

Cable Information Services (Kansas), LLC. Time Warner Cable Inc. owns and/or operates cable systems throughout the United States and in the State of Kansas through one or more of its subsidiaries, affiliates, partners, or other related parties, including but not limited to Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC.

9. On information and belief, defendants Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC (collectively, “Time Warner”), and/or one or more of their affiliates provide and/or participate in providing broadband and/or packet-based telephony products and/or services, including Digital Home Phone.

JURISDICTION

10. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 271, *et. seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.

11. On information and belief, defendants Time Warner Cable Inc. and Time Warner Cable, LLC conduct business in this Judicial District and have committed acts of patent infringement in this Judicial District including, *inter alia*, importing, making, using, offering for sale, and/or selling infringing products and/or services in this Judicial District.

12. On information and belief, defendants Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC are registered to do business

in this Judicial District, conduct business in this Judicial District, and have committed acts of patent infringement in this Judicial District including, *inter alia*, importing, making, using, offering for sale, and/or selling infringing products and/or services in this Judicial District. Defendants Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC are hereinafter referred to as “Time Warner,” collectively and separately.

VENUE

13. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400(b).

JOINDER

14. Joinder of Defendants is proper under 35 U.S.C. § 299. The allegations of patent infringement contained herein arise out of the same series of transactions or occurrences relating to the making, using, offering for sale, and/or selling within the United States, and/or importing into the United States, of the same accused products/services, including Defendants’ Digital Home Phone.

15. Common questions of fact relating to Defendants’ infringement will arise in this action.

FACTUAL BACKGROUND

Sprint’s Voice-over-Packet (“VoP”) Technology

16. In 1993, Sprint’s leading technology specialists and engineers were attempting to solve a very important problem affecting Sprint’s ability to expand its network to support its rapidly growing customer base. At that time, virtually all voice traffic was carried over the Public Switched Telephone Network (“PSTN”), which utilized highly complex, extremely

expensive switches and other well-established components to route this traffic. One solution to Sprint's problem—a solution that Sprint had used in the past—was to simply purchase additional switches from the legacy manufacturers and install those in its network. Adding switches, however, was extremely expensive and time consuming because Sprint's entire network of switches would have to be reprogrammed for each switch addition or upgrade. In addition, voice traffic on the PSTN was transported using inherently inefficient synchronous circuit-switching. A circuit was reserved for the entire length of a call on the PSTN, which wasted significant bandwidth during periods of time when no conversation was occurring. But legacy circuit-based systems had long been widely used to carry voice communications, and there were no viable alternatives in the marketplace available to Sprint or other carriers at the time.

17. One of Sprint's talented technologists, Joe Christie, observed that data communications between computers were handled differently. Computers communicated with each other using "packets" of data. Packet communications, unlike the synchronous communications of the PSTN, could occur "asynchronously" where the sending and receiving points could send and receive out of synch with each other. This created an opportunity to realize substantial efficiencies by transmitting voice data packets only when there is voice data to send and refraining from wasting valuable bandwidth during periods of silence. In addition, unlike the complex and expensive switches used in the PSTN, data packets could be routed using fairly inexpensive components that could be made available from a number of competing vendors. Unfortunately, the two systems were not compatible with each other. Interfacing a circuit-switched system with a packet-based system in a geographically expansive telecommunications environment was not a reality, at least not before Joe Christie.

18. Joe Christie was an expert in two dissimilar technologies: packet-based networks and SS7 signaling (which was used by the PSTN to set up voice calls). Mr. Christie proposed a solution that would ultimately revolutionize the telecommunications industry. He devised a way to leverage the efficiencies of packet-based networks to make telephone calls to and from the PSTN. To do so, Mr. Christie invented a series of architectures, components, and processes that would allow the PSTN to “talk” to packet-based networks to set up and route telephone calls across these disparate networks in a seamless and transparent manner. These calls were highly efficient and substantially decreased the need for telephone companies to rely on expensive legacy PSTN equipment.

19. Mr. Christie’s Voice-over-Packet (“VoP”) technology reduced or eliminated the need of service providers to rely on conventional switches and switch-to-switch call processing. Instead, Mr. Christie conceived of centralizing network control by using a call processor to orchestrate calls over his new packet-based system. The call processor acted like the brains of the network, determining where a call needed to go and then enabling routing to its destination. This call processor extracted the intelligence of expensive and complicated legacy switches and placed this intelligence on functionally separate computer platforms. By extracting call control from the switch manufacturers, Mr. Christie allowed a host of competitors to provide processing equipment and to get into the business of telephony. This innovation would eventually increase competition, drive down the costs of telephony, and greatly improve efficiency.

20. When Mr. Christie presented his innovations to Sprint executives and Sprint technical management, they recognized the importance of his innovations. Mr. Christie’s inventions had the potential to render obsolete major components within the PSTN and to break the grip that switch manufacturers held on carriers and service providers. Mr. Christie’s

innovations could dramatically alter the way telephone calls were made and change the landscape of the relative strength and leverage of the players in the industry. They represented a sea change in telephony, and Mr. Christie's colleagues at Sprint, including upper-level executives, realized it. Sprint promptly assigned a patent agent to shadow Mr. Christie to learn as much as possible about the various aspects of his new systems and to seek patent protection. Sprint also assigned a team of some of Sprint's most talented engineers to work with Mr. Christie and to help develop concepts into tangible platforms. Due to the highly sensitive nature of the project, the team was sequestered in a Kansas City facility and instructed to maintain the project in the strictest of confidence. Few people in Sprint knew of this project at the time.

21. Joe Christie died unexpectedly in his home in February of 1996. Mr. Christie did not live to see his innovations deployed into a commercial platform. But Mr. Christie's revolutionary inventions have an enduring legacy. Mr. Christie's inventions and the related innovations made by people working with Mr. Christie have resulted in a VoP patent portfolio of over 120 issued United States Patents. Unfortunately, many companies in the industry, including Time Warner, have realized the great value in this technology and have misappropriated it without Sprint's permission. It is because of this unauthorized use that Sprint has taken efforts to enforce this patent portfolio against others in the industry in the past and is now enforcing its patents in this case.

Sprint's Enforcement Efforts and Licenses

22. In 2007, in the matter styled *Sprint Communications Co. L.P. v. Vonage Holdings Corp. et al.*, Case No. 05-2433-JWL (D. Kan.), a Kansas jury found that Vonage Holdings Corp. and Vonage America, Inc. ("Vonage") had infringed six patents contained in this portfolio, including patents that are at issue in this case, found that the six patents were valid, assessed a

five percent (5 %) reasonable royalty, and awarded Sprint \$69.5 million in damages. Following the verdict, Vonage entered a settlement agreement with Sprint whereby Vonage paid Sprint \$80 million for a license to Sprint's VoP portfolio. Previously, in that same matter, tglo.com, Inc. (formerly known as VoiceGlo Holdings, Inc) and Theglobe.com Inc. ("VoiceGlo") had entered a settlement agreement in which VoiceGlo licensed Sprint's VoP patents.

23. In 2008, Sprint again sued to enforce patents from its VOP portfolio in additional lawsuits against companies engaging in the unauthorized use of Sprint's VoP technology: *Sprint Communications Co. L.P. v. Paetec Holding Corp. et al.*, Case No. 08-cv-2044-JWL/GLR (D. Kan.), *Sprint Communications Co. L.P. v. Broadvox Holdings, LLC et al.*, Case No. 08-cv-2045-JWL/DJW (D. Kan.); *Sprint Communications Co. L.P. v. Big River Telephone Co., LLC*, Case No. 08-cv-2046-JWL/DJW (D. Kan.), and *Sprint Communications Co. L.P. v. Nuvox, Inc. et al.*, Case No. 08-cv-2047-JWL/JPO (D. Kan.). By late 2009, Sprint had entered settlement agreements resolving these lawsuits and, as a result, a number of additional companies licensed patents from Sprint's VoP portfolio.

24. During this same time frame, Sprint continued to derive substantial revenues from providing numerous cable companies, including Time Warner Cable, with a network backbone to carry voice traffic to support those companies' digital home telephone offerings, which use packet networks coupled with the PSTN.

The Patents-In-Suit

25. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,343,084 ("the '084 patent") entitled "Broadband Telecommunications System," which duly and legally issued in the name of Joseph Michael Christie on January 29, 2002. A copy of the '084 patent is attached to the Complaint as Exhibit A.

26. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,633,561 (“the ‘3,561 patent”) entitled “Method, System and Apparatus for Telecommunications Control,” which duly and legally issued in the name of Joseph Michael Christie on October 14, 2003. A copy of the ‘3,561 patent is attached to the Complaint as Exhibit B.

27. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,463,052 (“the ‘052 patent”) entitled “Method, System and Apparatus for Telecommunications Control,” which duly and legally issued in the name of Joseph Michael Christie on October 8, 2002. A copy of the ‘052 patent is attached to the Complaint as Exhibit C.

28. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,452,932 (“the ‘932 patent”) entitled “Method, System and Apparatus for Telecommunications Control,” which duly and legally issued in the name of Joseph Michael Christie on September 17, 2002. A copy of the ‘932 patent is attached to the Complaint as Exhibit D.

29. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,473,429 (“the ‘429 patent”) entitled “Broadband Telecommunications System,” which duly and legally issued in the name of Joseph Michael Christie on October 29, 2002. A copy of the ‘429 patent is attached to the Complaint as Exhibit E.

30. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,298,064 (“the ‘064 patent”) entitled “Broadband Telecommunications System,” which duly and legally issued in the name of Joseph Michael Christie on October 2, 2001. A copy of the ‘064 patent is attached to the Complaint as Exhibit F.

31. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,262,992 (“the ‘992 patent”) entitled “System and Method for Transporting a Call in a Telecommunication Network,” which duly and legally issued in the names of Tracy Lee Nelson, William Lyle Wiley, and Albert Daniel DuRee on July 17, 2001. A copy of the ‘992 patent is attached to the Complaint as Exhibit G.

32. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,330,224 (“the ‘224 patent”) entitled “System and Method for Providing Enhanced Services for a Telecommunication Call,” which duly and legally issued in the names of Joseph Michael Christie, Joseph S. Christie, and Tracy Lee Nelson on December 11, 2001. A copy of the ‘224 patent is attached to the Complaint as Exhibit H.

33. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,563,918 (“the ‘918 patent”) entitled “Telecommunications System Architecture for Connecting a Call,” which duly and legally issued in the names of Tracy Lee Nelson, William Lyle Wiley, Royal Dean Howell, Michael Joseph Gardner, and Albert Daniel DuRee on May 13, 2003. A copy of the ‘918 patent is attached to the Complaint as Exhibit I.

34. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,639,912 (“the ‘912 patent”) entitled “Number Portability in a Communications System,” which duly and legally issued in the names of Joseph Michael Christie, Joseph S. Christie, Jean M. Christie, Michael Joseph Gardner, Albert Daniel DuRee, William Lyle Wiley, and Tracy Lee Nelson on October 28, 2003. A copy of the ‘912 patent is attached to the Complaint as Exhibit J.

35. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,697,340 (“the ‘340 patent”) entitled “System and Method for

Providing Enhanced Services for a Telecommunication Call,” which duly and legally issued in the names of Joseph Michael Christie, Joseph S. Christie, Jean M. Christie, and Tracy Lee Nelson on February 24, 2004. A copy of the ‘340 patent is attached to the Complaint as Exhibit K.

36. Plaintiff Sprint is the owner by assignment of all right, title, and interest in and to United States Patent No. 7,286,561 (“the ‘6,561 patent”) entitled “Method System and Apparatus for Telecommunications Control,” which duly and legally issued in the name of Joseph Michael Christie on October 23, 2007. A copy of the ‘6,561 patent is attached to the Complaint as Exhibit L.

37. The patents identified in paragraphs 25–36 and attached at Exhibits A–L are herein collectively referred to as “Sprint’s Patents.” Sprint’s Patents are a part of Sprint’s revolutionary VoP patent portfolio.

Time Warner

38. Upon information and belief, Time Warner is the second largest cable operator in the United States, providing cable television, broadband Internet, and telephone service to both residential and commercial customers.

39. Upon information and belief, Time Warner has made, used, offered to sell, and/or sold, and continues to make, use, offer to sell, and/or sell broadband and/or packet-based telephony products and/or services, including Digital Home Phone, without Sprint’s permission.

40. Upon information and belief, within this Judicial District, Time Warner, without Sprint’s permission, has made, used, offered to sell, and/or sold, and continues to make, use, offer to sell, and/or sell broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe Sprint’s Patents.

COUNT 1: PATENT INFRINGEMENT

Infringement of the '084 Patent

41. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–40 above.

42. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '084 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '084 patent.

43. Upon information and belief, Time Warner's infringement of the '084 patent will continue unless enjoined by this Court.

44. As a direct and proximate consequence of Time Warner's infringement of the '084 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 2: PATENT INFRINGEMENT

Infringement of the '3,561 Patent

45. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–44 above.

46. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '3,561 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '3,561 patent.

47. Upon information and belief, Time Warner's infringement of the '3,561 patent will continue unless enjoined by this Court.

48. As a direct and proximate consequence of Time Warner's infringement of the '3,561 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 3: PATENT INFRINGEMENT

Infringement of the '052 Patent

49. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–48 above.

50. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '052 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '052 patent.

51. Upon information and belief, Time Warner's infringement of the '052 patent will continue unless enjoined by this Court.

52. As a direct and proximate consequence of Time Warner's infringement of the '052 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 4: PATENT INFRINGEMENT

Infringement of the '932 Patent

53. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–52 above.

54. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the ‘932 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘932 patent.

55. Upon information and belief, Time Warner’s infringement of the ‘932 patent will continue unless enjoined by this Court.

56. As a direct and proximate consequence of Time Warner’s infringement of the ‘932 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 5: PATENT INFRINGEMENT

Infringement of the ‘429 Patent

57. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–56 above.

58. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the ‘429 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘429 patent.

59. Upon information and belief, Time Warner’s infringement of the ‘429 patent will continue unless enjoined by this Court.

60. As a direct and proximate consequence of Time Warner’s infringement of the ‘429 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 6: PATENT INFRINGEMENT

Infringement of the '064 Patent

61. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–60 above.

62. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '064 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '064 patent.

63. Upon information and belief, Time Warner's infringement of the '064 patent will continue unless enjoined by this Court.

64. As a direct and proximate consequence of Time Warner's infringement of the '064 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 7: PATENT INFRINGEMENT

Infringement of the '992 patent

65. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–64 above.

66. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '992 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '992 patent.

67. Upon information and belief, Time Warner's infringement of the '992 patent will continue unless enjoined by this Court.

68. As a direct and proximate consequence of Time Warner's infringement of the '992 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 8: PATENT INFRINGEMENT

Infringement of the '224 patent

69. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–68 above.

70. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '224 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the '224 patent.

71. Upon information and belief, Time Warner's infringement of the '992 patent will continue unless enjoined by this Court.

72. As a direct and proximate consequence of Time Warner's infringement of the '224 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 9: PATENT INFRINGEMENT

Infringement of the '918 patent

73. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–72 above.

74. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the '918 patent by making, using, selling, offering for sale, contributing to

the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘918 patent.

75. Upon information and belief, Time Warner’s infringement of the ‘918 patent will continue unless enjoined by this Court.

76. As a direct and proximate consequence of Time Warner’s infringement of the ‘918 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 10: PATENT INFRINGEMENT

Infringement of the ‘912 patent

77. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–76 above.

78. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the ‘912 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘912 patent.

79. Upon information and belief, Time Warner’s infringement of the ‘912 patent will continue unless enjoined by this Court.

80. As a direct and proximate consequence of Time Warner’s infringement of the ‘912 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 11: PATENT INFRINGEMENT

Infringement of the ‘340 patent

81. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–80 above.

82. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the ‘340 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘340 patent.

83. Upon information and belief, Time Warner’s infringement of the ‘340 patent will continue unless enjoined by this Court.

84. As a direct and proximate consequence of Time Warner’s infringement of the ‘340 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

COUNT 12: PATENT INFRINGEMENT

Infringement of the ‘6,561 patent

85. Sprint realleges and incorporates by reference the allegations set forth in paragraphs 1–84 above.

86. Upon information and belief, Time Warner has been, and currently is, directly and indirectly infringing the ‘6,561 patent by making, using, selling, offering for sale, contributing to the use of by others, and/or inducing others to use broadband and/or packet-based telephony products and/or services, including Digital Home Phone, that infringe the ‘6,561 patent.

87. Upon information and belief, Time Warner’s infringement of the ‘6,561 patent will continue unless enjoined by this Court.

88. As a direct and proximate consequence of Time Warner's infringement of the '6,561 patent, Sprint has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Sprint is entitled to relief.

PRAYER FOR RELIEF

Wherefore, Sprint requests entry of judgment in its favor and against Time Warner as follows:

- A. Enter judgment that Time Warner has infringed Sprint's Patents;
 - B. Enter judgment that Time Warner has induced infringement of Sprint's Patents;
 - C. Enter judgment that Time Warner has contributed to infringement of Sprint's Patents;
 - D. Enter a permanent injunction restraining and enjoining Time Warner, and their respective officers, agents, servants, employees, attorneys, and those persons in active concert or participation with Time Warner who receive actual notice of the order by personal service or otherwise, from any further sales or use of their infringing products and/or services and any other infringement of Sprint's Patents, whether direct or indirect;
 - E. For damages to compensate Sprint for Time Warner's infringement of Sprint's Patents pursuant to 35 U.S.C. § 284;
 - F. For enhanced damages, pursuant to 35 U.S.C. § 284;
 - G. For an award of pre-judgment and post-judgment interest and costs to Sprint in accordance with 35 U.S.C. § 284;
 - H. For an award of Sprint's reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
- and

I. For such other and further relief as the Court may deem just, proper, and equitable under the circumstances.

DEMAND FOR JURY TRIAL

Sprint respectfully demands a trial by jury on all claims and issues so triable.

DESIGNATION OF PLACE OF TRIAL

Sprint hereby designates Kansas City, Kansas as place of trial pursuant to Local Rule 40.2.

Dated: December 19, 2011

Respectfully Submitted,

SHOOK, HARDY & BACON L.L.P.

A handwritten signature in black ink, appearing to read "B. Webb", with a stylized flourish.

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***Attorneys For Plaintiff Sprint
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EXHIBIT 3

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS COMPANY L.P.,

Plaintiff,

v.

Case No. 11-2684-JWL

COMCAST CABLE COMMUNICATIONS, LLC,
et al.,

Defendants.

PRETRIAL ORDER

A pretrial conference was conducted in this case on July 16, 2015 by U.S. Magistrate Judge James P. O’Hara. The plaintiff, Sprint Communications Company L.P. (“Sprint”), appeared through counsel, B. Trent Webb, Peter E. Strand, Robert H. Reckers, Ryan J. Schletzbaum, and Ryan D. Dykal. The defendants, Comcast Cable Communications, LLC, Comcast IP Phone, LLC, and Comcast Phone of Kansas, LLC (collectively, “Comcast”), appeared through counsel, Anthony I. Fenwick, Michael L. Brody, David J. Lisson, and Paul S. Penticuff.

This pretrial order supersedes all pleadings and controls the subsequent course of this case. It will not be modified except by consent of the parties and the court’s approval, or by order of the court to prevent manifest injustice. Fed. R. Civ. P. 16(d) & (e); D. Kan. Rule 16.2(c).

1. PRELIMINARY MATTERS.

a. Subject Matter Jurisdiction. Subject matter jurisdiction is invoked under 28 U.S.C. §§ 1331 & 1338(a), and is not disputed.

b. Personal Jurisdiction. The court's personal jurisdiction over the parties is not disputed.

c. Venue. Venue is proper in this court pursuant to 28 U.S.C. §§ 1391(b), (c), & 1400(b), and is not disputed.

d. Governing Law. Subject to the court's determination of the law that applies to the case, the parties believe and agree that the parties' claims and defenses are governed by federal law, including 35 U.S.C. § 1 et seq.

2. STIPULATIONS.

a. The following facts are stipulated:

(1) Plaintiff Sprint Communications Company L.P. is a limited partnership organized and existing under the laws of the State of Delaware, with its principal place of business at 6200 Sprint Parkway, Overland Park, Kansas 66251.

(2) Defendant Comcast Cable Communications, LLC is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at One Comcast Center, 1701 JFK Blvd., Philadelphia, Pennsylvania 19103-2838.

(3) Defendant Comcast IP Phone, LLC is a limited liability company registered to do business in the State of Kansas and organized and existing under the laws

of the Commonwealth of Pennsylvania, with its principal place of business at One Comcast Center, 1701 JFK Blvd., Philadelphia, Pennsylvania 19103-2838.

(4) Defendant Comcast Phone of Kansas, LLC is a limited liability company registered to do business in the State of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at One Comcast Center, 1701 JFK Blvd., Philadelphia, Pennsylvania 19103-2838.

(5) On January 29, 2002, United States Patent No. 6,343,084 (“the ‘084 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S. Patent and Trademark Office (“U.S.P.T.O.”) to Joseph Michael Christie (“Christie”).

(6) The ‘084 Patent expired on May 5, 2014.

(7) The ‘084 Patent issued from U.S. Application No. 09/439,033 (“the ‘033 Application”), filed on November 12, 1999. The ‘033 Application is a continuation of U.S. Application No. 08/525,897 (“the ‘897 Application”), filed on September 8, 1995.

(8) On October 14, 2003, United States Patent No. 6,633,561 (“the ‘3,561 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Christie.

(9) The ‘3,561 Patent expired on May 5, 2014.

(10) The ‘3,561 Patent issued from U.S. Application No. 10/002,850 (“the ‘850 Application”), filed on November 14, 2001. The ‘850 Application is a continuation of U.S. Application No. 09/082,040, which is a continuation of U.S.

Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(11) On October 8, 2002, United States Patent No. 6,463,052 (“the ‘052 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Christie.

(12) The ‘052 Patent expired on May 5, 2014.

(13) The ‘052 Patent issued from U.S. Application No. 09/082,182 (“the ‘182 Application”), filed on May 20, 1998. The ‘182 Application is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(14) On September 17, 2002, United States Patent No. 6,452,932 (“the ‘932 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Christie.

(15) The ‘932 Patent expired on May 5, 2014.

(16) The ‘932 Patent issued from U.S. Application No. 09/499,874 (“the ‘874 Application”), filed on February 7, 2000. The ‘874 Application is a continuation of U.S. Application No. 09/081,891, which is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(17) On October 29, 2002, United States Patent No. 6,473,429 (“the ‘429 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S.P.T.O. to Christie.

(18) The ‘429 Patent expired on May 5, 2014.

(19) The ‘429 Patent issued from U.S. Application No. 09/353,401 (“the ‘401 Application”), filed on July 15, 1999. The ‘401 Application is a continuation of the ‘897 Application, filed on September 8, 1995.

(20) On October 2, 2001, United States Patent No. 6,298,064 (“the ‘064 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S.P.T.O. to Christie.

(21) The ‘064 Patent expired on May 5, 2014.

(22) The ‘064 Patent issued from U.S. Application No. 09/504,408 (“the ‘408 Application”), filed on February 15, 2000. The ‘408 Application is a continuation of U.S. Application No. 09/353,401, which is a continuation of the ‘897 Application, filed on September 8, 1995.

(23) On December 11, 2001, United States Patent No. 6,330,224 (“the ‘224 Patent”) entitled “System and Method for Providing Enhanced Services for a Telecommunication Call” was issued by the U.S.P.T.O. to Christie and Joseph S. Christie, Jean M. Christie, and Tracy Lee Nelson.

(24) The ‘224 Patent expires on November 22, 2016.

(25) The ‘224 Patent issued from U.S. Application No. 09/272,655 (“the ‘655 Application”), filed on March 18, 1999. The ‘655 Application is a continuation of U.S. Application No. 08/754,847, filed on November 22, 1996.

(26) On May 13, 2003, United States Patent No. 6,563,918 (“the ‘918 Patent”) entitled “Telecommunications System Architecture for Connecting a Call” was

issued by the U.S.P.T.O. to Tracy Lee Nelson, William Lyle Wiley, Royal Dean Howell, Michael Joseph Gardner, and Albert Daniel DuRee.

(27) The ‘918 Patent expires on February 20, 2018.

(28) The ‘918 Patent issued from U.S. Application No. 09/026,906, filed on February 20, 1998.

(29) On February 24, 2004, United States Patent No. 6,697,340 (“the ‘340 Patent”) entitled “System and Method for Providing Enhanced Services for a Telecommunication Call” was issued by the U.S.P.T.O. to Christie and Joseph S. Christie, Jean M. Christie, and Tracy Lee Nelson.

(30) The ‘340 Patent expires on November 22, 2016.

(31) The ‘340 Patent issued from U.S. Application No. 10/336,999 (“the ‘999 Application”), filed on January 6, 2003. The ‘999 Application is a continuation of U.S. Application No. 09/272,932, which is a continuation of U.S. Application No. 08/754,847, filed on November 22, 1996.

(32) On October 23, 2007, United States Patent No. 7,286,561 (“the ‘6,561 Patent”) entitled “Method System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Christie.

(33) The ‘6,561 Patent expired on May 5, 2014.

(34) The ‘6,561 Patent issued from U.S. Application No. 10/633,798 (“the ‘798 Application”), filed on August 4, 2003. The ‘798 Application is a continuation of U.S. Application No. 09/082,040, which is a continuation of U.S.

Application No. 08/568,551, which is a continuation of the '605 Application, filed on May 5, 1994.

(35) Sprint is the owner by assignment of all right, title, and interest to the '084 Patent.

(36) Sprint is the owner by assignment of all right, title, and interest to the '3,561 Patent.

(37) Sprint is the owner by assignment of all right, title, and interest to the '052 Patent.

(38) Sprint is the owner by assignment of all right, title, and interest to the '932 Patent.

(39) Sprint is the owner by assignment of all right, title, and interest to the '429 Patent.

(40) Sprint is the owner by assignment of all right, title, and interest to the '064 Patent.

(41) Sprint is the owner by assignment of all right, title, and interest to the '224 Patent.

(42) Sprint is the owner by assignment of all right, title, and interest to the '918 Patent.

(43) Sprint is the owner by assignment of all right, title, and interest to the '340 Patent.

(44) Sprint is the owner by assignment of all right, title, and interest to the '6,561 Patent.

(45) Sprint asserts and Comcast denies that Comcast has infringed claims 1, 4, and 7 of the '084 Patent.

(46) Sprint asserts and Comcast denies that Comcast has infringed claims 1-3, 7, 15, 22-26, 29, 36, and 38 of the '3,561 Patent.

(47) Sprint asserts and Comcast denies that Comcast has infringed claims 1-5, 8-9, and 11 of the '052 Patent.

(48) Sprint asserts and Comcast denies that Comcast has infringed claims 1, 8, and 16 of the '932 Patent.

(49) Sprint asserts and Comcast denies that Comcast has infringed claims 1-3 and 5-8 of the '429 Patent.

(50) Sprint asserts and Comcast denies that Comcast has infringed claims 1-3, 7, 9, and 26 of the '064 Patent.

(51) Sprint asserts and Comcast denies that Comcast has infringed and is infringing claims 1-4, 7, 13-14, and 20-21 of the '224 Patent.

(52) Sprint asserts and Comcast denies that Comcast has infringed and is infringing claims 11-12 of the '918 Patent.

(53) Sprint asserts and Comcast denies that Comcast has infringed and is infringing claims 11-12, 17, and 20 of the '340 Patent.

(54) Sprint asserts and Comcast denies that Comcast has infringed claims 11-12, 14, and 18-20 of the '6,561 Patent.

(55) In 2005, Sprint filed a lawsuit against Vonage Holding Corp. and Vonage America, Inc. (collectively "Vonage") over patents including U.S. Patent

Numbers 6,633,561, 6,463,052, 6,452,932, 6,473,429, and 6,298,064 (which are also asserted in this case).

(56) Comcast was aware of *Sprint Communications Company L.P. v. Vonage Holdings Corp., et al.*, Case No. 05-cv-2433 (D. Kan.) (“the Vonage Litigation”) as early as October 5, 2005. As a result of media reports concerning the Vonage Litigation, Comcast became aware of U.S. Patent Nos. 6,633,561, 6,463,052, 6,452,932, 6,473,429, and 6,298,064 on or around October 2005.

(57) In 2008, Sprint filed the following lawsuits: *Sprint Communications Co. L.P. v. Paetec Holding Corp. et al.*, Case No. 08-cv-2044-JWL/GLR (D. Kan.); *Sprint Communications Co. L.P. v. Broadvox Holdings, LLC et al.*, Case No. 08-cv-2045-JWL/DJW (D. Kan.); *Sprint Communications Co. L.P. v. Big River Telephone Co., LLC*, Case No. 08-cv-2046-JWL/DJW (D. Kan.); and *Sprint Communications Co. L.P. v. Nuvox, Inc. et al.*, Case No. 08-cv-2047-JWL/JPO (D. Kan.). In these lawsuits, Sprint asserted U.S. Patent Numbers 6,343,084, 6,298,064, 6,473,429, 6,463,052, 6,633,561, and 6,452,932 (which are also asserted in this case).

(58) Comcast learned that Sprint filed patent infringement lawsuits against Paetec Holding Corporation, Broadvox Holdings, LLC, Big River Telephone Co., LLC, and Nuvox, Inc. in the District of Kansas shortly after the lawsuits were filed on January 24, 2008. Through media coverage of these prior litigations, Comcast became aware of U.S. Patent No. 6,343,084 on or around January 2008.

b. The parties have not yet stipulated to the admissibility of any exhibits for purposes of summary judgment or trial. However, they anticipate filing such stipulations after the court makes its summary judgment rulings.

c. Legible photocopies of exhibits may be used, offered, and received in lieu of originals, subject to all foundational requirements and other objections that might be made to the admissibility of originals, and subject to the right of the party against whom it is offered to inspect an original upon request reasonably in advance of any proposed use of the photocopy. Electronic versions of document exhibits in their native format, such as spreadsheets or presentations, may be offered and received in evidence in lieu of paper or PDF versions. Legible photocopies of United States patents and the content of U.S.P.T.O. file histories may be offered and received in evidence in lieu of certified copies thereof.

d. Each party may use a subset of an exhibit as a standalone exhibit, subject to evidentiary objections. Such subset exhibit shall be marked with the entire exhibit's number followed by a letter, for example, PTX1-A.

e. The parties agree that documents created by a party or subpoenaed third party and thereafter produced by that party or subpoenaed third party during the discovery phase of this litigation are presumed prima facie genuine and authentic.

3. FACTUAL CONTENTIONS.

a. Contentions of Plaintiff. Comcast has infringed one or more of the asserted claims of the Asserted Patents by making, using, selling, and/or offering for sale its Voice over Internet Protocol (“VoIP”) telephony products or services. The products

and services accused of infringing the Asserted Patents meet each limitation of one or more of the asserted claims of the Asserted Patents either literally or under the doctrine of equivalents, as those limitations have been construed by the court.

The asserted claims of the Asserted Patents are presumed valid under 35 U.S.C. § 282. That presumption can only be overcome if Comcast provides clear and convincing evidence of their invalidity. Each of the asserted claims of the Asserted Patents are presumed valid independently of the validity of the other claims under 35 U.S.C. § 282. There is no evidence that any single prior art reference discloses, expressly or inherently, each and every limitation of any of the asserted claims. The asserted claims, therefore, are not anticipated or invalid under 35 U.S.C. § 102. There is no evidence that the asserted claims are obvious in light of the prior art, under 35 U.S.C. § 103; nor is there any evidence that the prior art, alone or in combination, discloses each limitation of any of the asserted claims; or that there is any motivation or suggestion to combine elements of the prior art in the manner claimed. The asserted claims satisfy the requirements in 35 U.S.C. § 112. As a result, Comcast cannot meet its burden to show the asserted claims in Sprint's Asserted Patents are invalid.

Comcast first offered for commercial sale the accused VoIP telephone service in March 2005. Since that time, Comcast has grown to one of the largest subscriber-based VoIP service providers in North America, with \$3.7 billion in VoIP service revenues in 2014 and approximately 11.2 million residential and business voice subscribers as of 2014. Sprint is not seeking to recover all of Comcast's revenue or profits generated by the accused service, but Sprint is entitled to an award of damages in the amount of not

less than a reasonable royalty based on Comcast's infringement of the Asserted Patents, including prejudgment and post-judgment interest.

Sprint also seeks an injunction preventing Comcast from continuing to make, sell, offer to sell, and/or use the infringing services. Plaintiff can meet its burden to prove (1) that it has suffered an irreparable injury; (2) that remedies available at law are inadequate to compensate for that injury; (3) that an injunction is warranted when balancing the hardships between plaintiff and Comcast; and (4) that the public interest would not be disserved by a permanent injunction.

Comcast cannot meet its burden to prove laches. First, Comcast cannot demonstrate any unreasonable or inexcusable delay because its first infringement of the Accused Patents came within six years of Sprint's express notice of Comcast's infringement and subsequent good-faith licensing negotiations. Second, Sprint lacked actual or constructive notice of Comcast's infringement before 2008. Third, any delay in Sprint filing suit is justified based on Sprint's bilateral, good-faith negotiations with Comcast in January 2010, that ultimately proved unsuccessful, and the existence of closely related patents and Sprint's other enforcement actions during the period of alleged delay. Fourth, Comcast cannot show proof of material economic or evidentiary prejudice from any delay by Sprint to file suit. Fifth, Comcast cannot demonstrate that it would have done anything different had Sprint sued it within Comcast's alleged six-year laches window.

In addition, Comcast cannot meet its burden to prove equitable estoppel. First, Sprint did not mislead Comcast into believing it had the right to perform the services

protected by Sprint's Asserted Patents. Second, Comcast cannot establish that it relied on any communications, conduct, or silence by Sprint to determine that it had the right to perform the services protected by Sprint's Asserted Patents. Third, Comcast cannot prove material economic or evidentiary prejudice from any communications, conduct, or silence by Sprint relating to the Asserted Patents.

Comcast cannot meet its burden to show it has an implied license to any of Sprint's Asserted Patents. First, Sprint never granted Comcast a license to the Asserted Patents. Second, Sprint did not expressly or implicitly waive any right to enforce one or more of the Asserted Patents.

Comcast cannot meet its burden to show that Sprint should be estopped from invoking the doctrine of equivalents based on representations made in prosecution history of any Asserted Patents. In particular, Sprint, while prosecuting the Asserted Patents, never relinquished its right to argue that the accused media gateways satisfy the "interworking unit" limitation of the Asserted Patents under the doctrine of equivalents.

In addition, Comcast cannot meet its burden to show Sprint's damages are limited by 35 U.S.C § 286. Because Sprint seeks damages for infringement beginning in 2006, damages are not barred by the six-year limitation prescribed in 35 U.S.C § 286.

Comcast cannot meet its burden to show Sprint's infringement claims are barred by the doctrines of waiver and acquiescence. Sprint did not engage in conduct that evidenced an intent, or otherwise induced a reasonable belief, that Sprint relinquished its rights to enforce the Asserted Patents against Comcast. Additionally, Sprint expressed no

intention to abandon its enforcement rights in the Asserted Patents and did not neglect its rights so as to imply an intention to abandon those rights.

Finally, Comcast cannot demonstrate that Sprint is barred from asserting infringement of U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; and 6,298,064 by the doctrine of collateral estoppel. Judge Robinson's decision in the District of Delaware regarding indefiniteness is not final, and Sprint opposes Cox's request to certify the decision as final under Rule 54(b). Judge Robinson may revisit her decision regarding claim construction at any time prior to final judgment. Additionally, Judge Robinson's decision regarding definiteness does not dispose of all issues within a claim, including equitable defenses asserted by Cox, and therefore the order is not final for purposes of Fed. R. Civ. 54(b). Furthermore, the parties in the District of Kansas have already litigated the indefiniteness question and Judge Lungstrum found the "processing system" claims were not invalid as indefinite on October 9, 2014 (D.I. 435 at 6-13), rejecting the very arguments underlying Comcast's new collateral estoppel theory.

b. Contentions of Defendants. As outlined in greater detail in Comcast's interrogatory responses, prior to 2004, Sprint knew that Comcast was testing VoIP technology and conducting VoIP trials. In 2003, Sprint decided to pursue a strategy of partnering with the cable companies, including Comcast, to support their anticipated introduction of VoIP telephony services. Sprint encouraged Comcast's VoIP plans, vigorously pursued a role as a vendor and partner to Comcast in relation to Comcast's VoIP services through participation in Request for Information ("RFI") and Request for Proposal ("RFP") processes in 2003-2004, assisted with a Comcast market trial of VoIP

service in 2004, and assisted Comcast in commercially deploying a VoIP service nationwide. Prior to the March 2005 commercial launch of Comcast's VoIP service, Sprint possessed detailed information regarding the "PacketCable" VoIP architecture specifications previously released publicly by the "CableLabs" consortium of cable companies (including Comcast) and possessed detailed knowledge of Comcast's VoIP service as it had been trialed and was to be launched commercially. In July 2005, Sprint publicly announced its support of Comcast's earlier nationwide commercial launch of VoIP.

After investigating Vonage in 2003-2005, Sprint filed the Vonage Litigation in October 2005, asserting five of the patents asserted in this case. In 2008, following the Vonage Litigation, Sprint filed lawsuits asserting six of the patents asserted in this case against Paetec Holding Corp. Despite years of ongoing broad and active commercial engagement with Comcast, Sprint did not raise its patents with Comcast prior to 2010. Sprint ultimately initiated this lawsuit and those against other large cable companies—Time Warner Cable, Cox, and Cable One—in December 2011, shortly after Sprint lost out to Verizon on deals to purchase spectrum from Comcast, Time Warner Cable, Bright House Networks, and Cox. Sprint now asserts 61 claims across ten Asserted Patents against Comcast's VoIP telephony services and seeks over \$1 billion in damages.

Sprint's claims are barred entirely by the doctrine of equitable estoppel. Comcast reasonably inferred from Sprint's misleading conduct, including its silence during the RFI and RFP processes and for years thereafter, that Sprint did not intend to enforce patent rights against Comcast in connection with Comcast's provision of VoIP services.

Comcast reasonably relied on Sprint's misleading conduct, including its silence. And Comcast has been and will be materially prejudiced due to its reasonable reliance if Sprint's infringement claims are allowed to go forward.

Sprint is barred by the doctrine of laches from obtaining any damages for alleged infringement prior to December 19, 2011, when Sprint filed this lawsuit. Sprint unreasonably and inexcusably delayed in bringing suit against Comcast after it knew or reasonably should have known of Comcast's alleged infringement. Comcast has suffered economic and evidentiary prejudice attributable to Sprint's delay in filing suit. In addition, laches should be presumed because Sprint delayed filing suit for more than six years after it knew or reasonably should have known of Comcast's alleged infringement. Sprint cannot demonstrate that its delay in filing suit is justified based on negotiations between Sprint and Comcast beginning in February 2010, including because (1) Sprint did not pursue any such negotiations and was again silent regarding its patents from March 2010 to August 2011, (2) Sprint is precluded by agreement from making any such use in litigation of such negotiations. Further, Sprint cannot justify its delay based on its other enforcement actions because Sprint never notified Comcast of its intent to sue following the completion of those actions despite the significant interactions between the parties.

Sprint's infringement claims are entirely barred by the doctrines of waiver and acquiescence. Sprint had an existing right to sue for Comcast's alleged infringement, it had actual or constructive knowledge of Comcast's alleged infringement, and voluntarily or intentionally relinquished its known right to enforce the Asserted Patents against

Comcast. Sprint engaged in unequivocal and decisive conduct evidencing an intent to relinquish its known right to enforce the Asserted Patents against Comcast and Sprint's conduct was so inconsistent with an intent to enforce its right as to induce a reasonable belief that Sprint relinquished it. Moreover, Sprint knew or should have known it had a right to enforce the Asserted Patents against Comcast's alleged infringement, but neglected to enforce that right against Comcast for such a time as would imply an intention by Sprint to waive or abandon its right, and Comcast inferred that Sprint had abandoned its right to enforce the Asserted Patents against Comcast.

Each of Sprint's asserted patent claims is invalid, either as anticipated under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), or as obvious under 35 U.S.C. § 103 in view of the prior art identified in Comcast's Invalidity Contentions as well as the prior art opined upon in the expert reports of Dr. Henry Houh and Mr. Scott Bradner (collectively, "the prior art"). Comcast has asserted numerous prior art references which invalidate all of the asserted claims alone or in combination.

Sprint's infringement claims are entirely barred by implied license. Sprint engaged in conduct and communications from which Comcast could properly infer that Sprint consented to Comcast's use of Sprint patents in connection with Comcast's provision of VoIP services.

In addition, each of Sprint's asserted patent claims are invalid due to failure to meet the requirements of 35 U.S.C. § 112 as expressed in Defendants' Invalidity Contentions and the expert report of Dr. Paul Min. Specifically, the disclosures of the Sprint patents are explicit that the inventions in the possession of the claimed inventors

were limited to telecommunications methods and systems that implemented centralized call control and/or that used the ATM protocol, and to the extent that those claims encompass methods or systems that do not use centralized call control utilizing a CCP or a CCM as disclosed in the patents, and/or the ATM protocol, including telecommunications methods and systems implemented on IP telecommunications networks, they are unsupported by the specifications of Sprint's asserted patents.

Sprint is barred from asserting infringement of U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; and 6,298,064 by the doctrine of collateral estoppel. On May 15, 2015, Judge Robinson of the District of Delaware entered summary judgment that the common claim limitation "processing system" in those patents is indefinite.¹ The issue has been finally adjudicated on the merits by Judge Robinson and Sprint had a full and fair opportunity to litigate the issue.

Comcast has not infringed and does not infringe, literally or under the doctrine of equivalents, any valid and enforceable claim of the Asserted Patents.

Sprint is not entitled to the reasonable royalty damages that it seeks. In addition to the fact that the asserted claims of the Asserted Patents are invalid and not infringed, and the fact that the relief sought by Sprint is barred in whole or in part by the doctrines of laches, estoppel, waiver, acquiescence, implied license, and collateral estoppel, the amount of damages Sprint seeks does not reflect a reasonable royalty for the use made of

¹ D.I. 231, D. Del. Case No. 12-cv-487-SLR (May 15, 2015).

the invention. Sprint cannot meet its burden to prove the amount of damages that it seeks. In addition, Sprint is not entitled to prejudgment interest.

Sprint cannot meet its burden to be awarded an injunction. First, seven of the ten Asserted Patents have expired. Second, Sprint waited over seven years after Comcast began market trials of its accused VoIP services with Sprint's knowledge and participation before filing this lawsuit. Third, Sprint cannot prove any irreparable injury or that remedies available at law are inadequate to compensate for that injury. Fourth, a balance of hardships weighs against an injunction. Fifth, the public interest would be disserved by an injunction.

4. LEGAL CLAIMS AND DEFENSES.

a. Legal Claims of Plaintiff. Sprint asserts that it is entitled to recover upon the following theories:

(1) Comcast has infringed one or more of the asserted claims (Nos. 1-3, 7, 9, and 26) of the '064 Patent either literally or under the doctrine of equivalents, by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 6 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(2) Comcast has infringed one or more of the asserted claims (Nos. 1, 4, and 7) of the '084 Patent either literally or under the doctrine of equivalents, by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 1 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(3) Comcast has infringed one or more of the asserted claims (Nos. 1-3 and 5-8) of the '429 Patent either literally or under the doctrine of equivalents, by

making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 5 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(4) Comcast has infringed one or more of the asserted claims (Nos. 1-4, 7, 13-14, and 20-21) of the '224 Patent either literally or under the doctrine of equivalents, by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 8 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(5) Comcast has infringed one or more of the asserted claims (Nos. 11-12) of the '918 Patent either literally or under the doctrine of equivalents, by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 9 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(6) Comcast has literally infringed one or more of the asserted claims (Nos. 1, 8, and 16) of the '932 Patent by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 3 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(7) Comcast has literally infringed one or more of the asserted claims (Nos. 1-5, 8-9, and 11) of the '052 Patent by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 3 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(8) Comcast has literally infringed one or more of the asserted claims (Nos. 1-3, 7, 15, 22-26, 29, 36, and 38) of the '3,561 Patent by making, selling, or

offering to sale, and/or using certain VoIP telephony systems (Count 2 of Sprint's Amended Complaint, D.I. 034).. *See, e.g.*, 35 U.S.C. §§ 271, 281.

(9) Comcast has literally infringed one or more of the asserted claims (Nos. 11-12, 14, and 18-20) of the '6,561 Patent by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 12 of Sprint's Amended Complaint, D.I. 034). *See, e.g.*, 35 U.S.C. §§ 271, 281.

(10) Comcast has literally infringed one or more of the asserted claims (Nos. 11-12, 17, and 20) of the '340 Patent by making, selling, or offering to sale, and/or using certain VoIP telephony systems (Count 11 of Sprint's Amended Complaint, D.I. 034).. *See, e.g.*, 35 U.S.C. §§ 271, 281.

(11) The asserted claims of each of the ten above-referenced patents are presumed valid and enforceable, and there exists no clear and convincing evidence that could overcome that presumption. Under 35 U.S.C. § 284, Sprint is entitled to an award of damages adequate to compensate for Comcast's infringement of the ten above-referenced patents. These damages must be in an amount no less than a reasonable royalty. *See* 35 U.S.C. § 284.

(12) Sprint is entitled to award of prejudgment and post-judgment interest, and costs in accordance with 35 U.S.C. § 284.

(13) The asserted claims in Sprint's Asserted Patents are definite and the Federal Circuit's en banc opinion in *Williamson v. Citrix Online*, No. 2013-1130 (Fed. Cir. June 16, 2015) does not alter Judge Lungstrum's prior order declining to apply 35 U.S.C. § 112(f) to any of the claims or terms at issue. (D.I. 435 at 7-8).

b. Defenses of Defendants. Comcast asserts the following defenses:

(1) The asserted claims of the Asserted Patents are invalid under 35 U.S.C. § 112 (Second Defense of Comcast's Answer to Sprint's Amended Complaint).

(2) The asserted claims of the Asserted Patents are invalid under 35 U.S.C. § 102 (Second Defense of Comcast's Answer to Sprint's Amended Complaint).

(3) The asserted claims of the Asserted Patents are invalid under 35 U.S.C. § 103 (Second Defense of Comcast's Answer to Sprint's Amended Complaint).

(4) Sprint is unable to prove that Comcast has infringed or does infringe, literally or under the doctrine of equivalents, any asserted claim of the Asserted Patents (First and Fourth Defenses of Comcast's Answer to Sprint's Amended Complaint).

(5) Sprint is barred from any relief or recovery for the period prior to filing suit by the doctrine of laches (Fifth Defense of Comcast's Answer to Sprint's Amended Complaint).

(6) Sprint is barred from any relief or recovery because of the doctrine of equitable estoppel (Fifth Defense of Comcast's Answer to Sprint's Amended Complaint).

(7) Sprint is barred from any relief or recovery because of the doctrines of waiver and acquiescence (Fifth Defense of Comcast's Answer to Sprint's Amended Complaint).

(8) Sprint is barred from any relief or recovery because of the doctrine of implied license (Sixth Defense of Comcast's Answer to Sprint's Amended Complaint).

(9) Sprint is barred from any relief or recovery for the period prior to December 19, 2005 by 35 U.S.C. § 286 (Eighth Defense of Comcast's Answer to Sprint's Amended Complaint).

(10) Sprint is barred from any relief or recovery for infringement of the '932, '3,561, '052, '6,561, '429, and '064 Patents by the doctrine of collateral estoppel.

(11) Regardless of the preclusive effect of the Delaware invalidity decision, in light of the Federal Circuit's en banc opinion in *Williamson v. Citrix Online*, No. 2013-1130 (Fed. Cir. June 16, 2015), the claims containing the limitations addressed by the parties in D.I. 317, 340, and 360 are indefinite and therefore invalid as a matter of law.

5. DAMAGES AND NON-MONETARY RELIEF REQUESTED.

a. Plaintiff's Damages. Sprint contends that Comcast began infringing the Asserted Patents in March 2005. As a result of Comcast's past and continuing infringement of the Asserted Patents, Sprint is entitled to damages in an amount not less than a reasonable royalty for infringements beginning six years prior to the filing of this lawsuit on December 19, 2011. *See* 35 U.S.C. §§ 284, 286. Sprint's expert reports, dated April 3, 2015, set forth that Comcast had generated approximately \$29.1 billion of incremental revenue and \$20.0 billion of incremental profits from its VoIP telephony service. Sprint's experts concluded that Sprint is entitled to damages in the form of a reasonable royalty of at least \$1.50 per subscriber per month for a license to the Asserted Patents through May 5, 2014. Sprint's experts further conclude that Sprint is entitled to damages from Comcast in the form of an on-going reasonable royalty of \$0.13 per

subscriber per month through the remainder of the damages period. The reasonable royalty damages to Sprint as a result of Comcast's infringement of the Asserted Patents through December 31, 2014 are \$1.048 billion. Prior to the trial in this matter, and pursuant to the Federal Rules, Sprint will supplement these numbers.

Alternatively, in the event the court determines the appropriate damages start date is December 19, 2011, Sprint's experts have concluded that reasonable royalty damages to Sprint as a result of Comcast's alleged infringement of the Asserted Patents through December 31, 2014 are \$441.1 million.

Sprint further seeks its costs, prejudgment interest, and post-judgment interest on all damages.

b. Defendants' Damages. None claimed.

Comcast contends that Sprint is not entitled to any damages because the asserted claims of the Asserted Patents are invalid and not infringed, and because the relief sought by Sprint is barred in whole or in part by the doctrines of laches, equitable estoppel, waiver, acquiescence, implied license, and collateral estoppel.

If Sprint is entitled to damages, then Sprint is entitled to no more than a reasonable royalty for the use made of the invention and that Sprint cannot meet its burden to prove the amount of damages that it seeks.

Sprint is not entitled to costs or to prejudgment interest on any damages. Comcast contends that Comcast is entitled to Comcast's costs and attorney's fees.

6. AMENDMENTS TO PLEADINGS.

The court has granted Comcast's motion for leave to amend its answer to assert the defense of collateral estoppel, in light of Judge Robinson's May 15, 2015 summary judgment ruling in the District of Delaware that six of the Asserted Patents are indefinite (*see* ECF doc. 852).

7. DISCOVERY.

Under the scheduling order and any amendments, all discovery was to have been completed by June 30, 2015.

Discovery is complete, except as specifically noted below.

Sprint reported at the pretrial conference that non-party Cisco produced a privilege log in response to Sprint's document subpoena on June 30, 2015. Sprint believes it is entitled to (and that Cisco has promised) a Rule 30(b)(6) deposition of Cisco pursuant to Sprint's deposition subpoena. Comcast disagrees.

As a result of the court's order (ECF doc. 834), Comcast recently produced certain documents previously withheld as privileged, and Sprint has requested to depose David Marcus as the author or recipient of these documents. The parties are continuing to confer regarding this issue.

If any further discovery-related motions are filed (the timeliness of which is not decided today), the parties' principal briefs must be limited to 5 double-spaced pages, with any replies limited to 2 pages. Responsive briefs must be filed within 2 business days after the motion is filed; 1 business day is allowed for any replies.

Unopposed discovery may continue after the deadline for completion of discovery so long as it does not delay the briefing of or ruling on dispositive motions or other pretrial preparations. Although discovery may be conducted beyond the deadline for completion of discovery if all parties are in agreement to do so, under these circumstances the court will not be available to resolve any disputes that arise during the course of such extended discovery. But if discovery disputes arise from the discovery ordered in ECF doc. 834, such disputes are still subject to the court's resolution.

8. MOTIONS.

a. Pending Motions. On July 10, 2015, Comcast and the defendants in Case Nos. 11-2685 and 11-2686 filed a consolidated motion to stay all three cases until the Federal Circuit affirms or reverses the finding of invalidity of certain patents-in-suit in *Cox Communications, Inc. v. Sprint Communications L.P.*, Case No. 12-cv-00487-SLR in the District of Delaware (ECF doc. 846 in Case No. 11-2684).

b. Additional Pretrial Motions. Sprint anticipates filing a motion to bifurcate trial of Comcast's equitable defenses, which are questions of law, from trial of the liability issues of infringement, validity, and damages. According to Sprint, issues of infringement, validity, and damages should be tried by jury, and if the jury finds Comcast infringed one or more claims of a valid patent, then a separate bench trial before Judge Lungstrum should be held on Comcast's equitable defenses, including laches, equitable estoppel, waiver, and acquiescence. According to Comcast, issues of infringement, validity, damages, laches, equitable estoppel, waiver, and acquiescence all should be tried together because of the substantial overlap of the evidence, as the parties' extensive

relationship is relevant to both damages and Comcast's defenses. Moreover, were the court to sever the trial of equitable issues, Comcast believes it would make little sense to try those issues after the trial of validity, infringement, and damages issues, given the potentially unnecessary inconvenience to a jury and the fact that a ruling with respect to equitable issues could determine the relevant period for which a jury would need to determine damages. As discussed during the pretrial conference, Sprint's anticipated motion for bifurcation, and likewise Comcast's anticipated motion for an advisory jury on equitable defenses, must be filed within 5 business days of the date on which Judge Lungstrum files his summary judgment rulings in this case, or by **November 23, 2015**, whichever date is earlier. Responsive briefs with regard to these motions are due 5 business days after the motions are filed. Due to the related and overlapping nature of these motions, as discussed during the pretrial conference, no reply briefs shall be allowed.

Both Sprint and Comcast anticipate filing motions for summary judgment motions and motions in limine.

The dispositive-motion deadline, as established in the scheduling order and any amendments, is **July 31, 2015**. As provided by the court's original scheduling order (ECF doc. 69), 30 days shall be allowed for briefs in opposition to such motions, and 21 days for reply briefs, if any.

The parties should follow the summary-judgment guidelines available on the court's website:

<http://www.ksd.uscourts.gov/summary-judgment/>

The arguments and authorities section of briefs or memoranda must not exceed 30 pages, absent an order of the court. As discussed during the pretrial conference, Sprint and Comcast each shall file no more than a single motion for summary judgment that asserts all their respective arguments. The supporting briefs shall contain no more than 30 pages of argument. In addition, though, all of the defendants in Case Nos. 11-2684, 11-2685, and 11-2686 are granted leave to file a joint motion for summary judgment, focused entirely on their invalidity and collateral estoppel defenses, with a supporting brief containing no more than 20 pages of argument; Sprint's responsive brief shall be limited to 20 pages of argument.

c. Motions Regarding Expert Testimony. All motions to exclude testimony of expert witnesses pursuant to Fed. R. Evid. 702-705, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), or similar case law, must be filed in accordance with the dispositive-motion deadline stated above.

9. TRIAL.

The trial docket setting for the first of the three consolidated cases, as established in the scheduling order and any amendments, is **January 19, 2016, at 9:30 a.m., in Kansas City, Kansas.** Currently, this case is set to be tried with a jury.

The court will attempt to decide any timely filed dispositive motions approximately 60 days before trial. If no dispositive motions are timely filed, or if the case remains at issue after timely dispositive motions have been decided, then the trial judge will convene another pretrial conference to discuss, among other things, the setting

of deadlines for filing final witness and exhibit disclosures, exchanging and marking trial exhibits, designating deposition testimony for presentation at trial, motions in limine, proposed instructions in jury trials, and, if necessary, proposed findings of fact and conclusions of law in bench trials.

As provided by the court's third amended scheduling order (ECF doc. 525), a limine conference will be held on **January 8, 2016, at 10:00 a.m.**

IT IS SO ORDERED.

Dated July 24, 2015, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

CERTIFICATE OF SERVICE

Counsel are hereby notified that, unless the undersigned Magistrate Judge receives objections, corrections, or revisions to the foregoing proposed pretrial order by **July 23, 2015**, it will be signed and filed. If revisions are requested, counsel shall state in writing on a separate document in letter form the requested revision, identifying the paragraph number and the reason for such revision, and serve on opposing counsel and to the Magistrate Judge. Counsel shall confer about all such revisions before communicating them to the Magistrate Judge. Counsel are encouraged (but not required) to submit jointly any requests for revisions. At a minimum, written requests for revisions shall state whether opposing counsel consents or objects, and summarize the bases of all objections. All such requests for revisions shall be submitted via e-mail to:

ksd_ohara_chambers@ksd.uscourts.gov

This proposed pretrial order was served on July 16, 2015, on the following:

B. Trent Webb	bwebb@shb.com
Peter E. Strand	pstrand@shb.com
Robert H. Reckers	rreckers@shb.com
Ryan J. Schletzbaum	rschletzbaum@shb.com
Ryan D. Dykal	rdykal@shb.com
Anthony I. Fenwick	anthony.fenwick@davispolk.com
Michael L. Brody	mbrody@winston.com
David J. Lisson	david.lisson@davispolk.com

Paul S. Penticuff

penticuff@bscr-law.com

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

EXHIBIT 4

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS CO., L.P.,)	
	)	CONSOLIDATED CASES
Plaintiff,)	
)	
v.	)	Case No. 11-2684-JWL
)	
COMCAST CABLE COMMUNICATIONS,)	
LLC, et al.,)	
)	
Defendants.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2685-JWL
)	
CABLE ONE, INC.,)	
)	
Defendant.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2686-JWL
)	
TIME WARNER CABLE, INC., et al.,)	
)	
Defendants.)	
_____)	

THIRD AMENDED SCHEDULING ORDER

The parties have filed a joint motion to amend the consolidated scheduling order, seeking to extend all remaining deadlines but to keep the January 19, 2016 trial date intact (**ECF doc. 523**). After consultation with the presiding U.S. District Judge, John W. Lungstrum, the motion is granted and the scheduling order is amended as follows:

SUMMARY OF DEADLINES AND SETTINGS	
Event	Deadline/Setting
Fact discovery completed	March 13, 2015
Expert discovery completed	May 22, 2015
Experts disclosed by party with initial burden of proof	March 27, 2015
Rebuttal experts disclosed	May 1, 2015
Supplementation of disclosures	40 days before the deadline for completion of fact discovery
All potentially dispositive motions (e.g., summary judgment)	July 31, 2015
Motions challenging admissibility of expert testimony	July 31, 2015
Final pretrial conference	July 16, 2015, at 10:00 a.m.
Proposed pretrial order due	July 6, 2015
Limine Conference in Courtroom 440	January 8, 2016, at 10:00 a.m.
Trials	January 19, 2016, at 9:30 a.m.

The parties should note that a limine conference had not previously been scheduled and is new in this amended scheduling order. All other provisions of the prior scheduling

orders¹ shall remain in effect. The schedule adopted in this third amended scheduling order shall not be modified except by leave of court upon a showing of good cause.

IT IS SO ORDERED.

Dated December 15, 2014, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

¹See ECF docs. 69, 116, 168 and 348.

EXHIBIT 5

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS CO., L.P.,)	
	)	CONSOLIDATED CASES
Plaintiff,)	
)	
v.	)	Case No. 11-2684-JWL
)	
COMCAST CABLE COMMUNICATIONS,)	
LLC, et al.,)	
)	
Defendants.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2685-JWL
)	
CABLE ONE, INC.,)	
)	
Defendant.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2686-JWL
)	
TIME WARNER CABLE, INC., et al.,)	
)	
Defendants.)	
_____)	

SECOND AMENDED SCHEDULING ORDER

These consolidated cases involve claims by Sprint Communications Company, L.P. that defendants are infringing twelve patents related to broadband and packet-based telephony products. Defendants have filed a motion to amend the scheduling order, seeking a six-to-eight-month extension of all remaining deadlines and the continuance of the trial (**ECF doc. 288**). Defendants assert that the amendment is necessitated by Sprint's delay in producing documents during the discovery period, and by the sheer number of depositions noticed in this case that are yet to be taken. Sprint concedes some delay in its production of documents and recognizes that many depositions are yet to be scheduled, but argues that a three-month extension of deadlines is sufficient for the parties to take focused, necessary discovery. After reviewing the briefs and the record, the court finds good cause for defendants' requested extension.

Motions to modify a scheduling order are governed by Fed. R. Civ. P. 16(b)(4), which provides that "[a] schedule may be modified only for good cause and with the judge's consent." The party seeking to extend a scheduling-order deadline must establish good cause by proving that despite due diligence it cannot meet the deadline.¹ This normally requires the moving party to show good faith on its part and some reasonable basis for not meeting the deadline.² Whether to modify the scheduling order lies within the court's sound

¹*Manuel v. Wichita Hotel Partners, LLC*, No. 09-1244-WEB-KGG, 2010 WL 3861278, at *1–2 (D. Kan. Sept. 20, 2010) (*quoting Grieg v. Botros*, No. 08-1181-EFM, 2010 WL 3270102, at *3 (D. Kan. Aug. 12, 2010)).

²*Womble v. Salt Lake City Corp.*, 84 F. App'x 18, 20 (10th Cir. 2003) (citing *Putnam v. Morris*, 833 F.2d 903, 905 (10th Cir.1987)).

discretion.³

Sprint's delays in producing documents in these consolidated cases have been well documented in orders by the undersigned U.S. Magistrate Judge, James P. O'Hara. For example, in an order dated December 19, 2013—nearly eight months ago—the undersigned found that “the delay in Sprint’s document production makes it difficult for defendants to meet [scheduling order] deadlines” and begin fact depositions.⁴ As a result, the undersigned was compelled to enter an amended scheduling order extending all deadlines by three months.⁵ Despite the court’s admonition, Sprint’s discovery delays continued.

In an order dated May 6, 2014, the undersigned recognized that “not much ha[d] happened in the way of Sprint’s document production since the issuance of the amended scheduling order.”⁶ The undersigned expressed the court’s disapproval of “Sprint’s continued failure to work with defendants to reach a reasonable solution for the completion of document production in these consolidated actions.”⁷ The undersigned then set a May 20, 2014 deadline for the parties to confer and develop “a solid plan” for Sprint to complete its

³*Paris v. Sw. Bell Tel. Co.*, 94 F. App’x 810, 816 (10th Cir. 2004).

⁴ECF doc. 168 at 4–5.

⁵*Id.* at 5.

⁶ECF doc. 246 at 3 (citing a representation in defendant’s motion to compel that was not disputed by Sprint).

⁷*Id.* at 11; *see also id.* at 11 n.24 (“Sprint seems to be developing a practice of sluggish document production in this action.”).

production of documents.⁸

The parties represent that they then reached a plan for the completion of discovery. Sprint agreed to produce documents from certain custodians. However, Sprint has yet to produce documents from five of those custodians, and has not committed to a date by which to complete its production from all custodians. The parties have noticed over one-hundred fact depositions, eighty-one of which remain to be completed, and fifty-eight of which remain to be scheduled. Defendants assert that under the current deadlines, they will be denied an opportunity to review at least a majority of Sprint's documents prior to taking depositions in advance of expert discovery. In addition, given the sheer number of fact depositions noticed, the depositions would have to be double or triple scheduled to be completed on time. Defendants should not be forced to prepare for these depositions on an expedited basis solely as a result of Sprint's delay in producing relevant documents. Finally, Sprint acknowledges that it is still working to identify designees for Rule 30(b)(6) deposition notices served by defendants.

Under these circumstances, the undersigned finds that defendants have established good cause for the extension of deadlines set in the scheduling order. Given Sprint's continued delay in document production, defendants have a reasonable basis for their inability to meet current discovery deadlines. The undersigned also finds good cause to enter

⁸*Id.* at 15; *see also id.* at 19 (“Quite frankly, Sprint should have done this long ago in response to defendants’ requests and pending discovery deadlines.”).

a separate deadline for fact discovery which proceeds the deadline for expert discovery. Defendants have demonstrated that fact discovery will serve as a predicate for expert reports—a proposition that Sprint does not contest. Finally, the undersigned will grant Sprint’s request—which defendants do not oppose—to set a simultaneous expert-report deadline for the party that bears the initial burden of proof on a subject matter and a simultaneous rebuttal expert-report deadline on issues for which the opposing party bears the burden of proof.

Therefore, defendants’ motion is granted and the scheduling order is amended as follows:

SUMMARY OF DEADLINES AND SETTINGS	
Event	Deadline/Setting
Fact discovery completed	January 16, 2015
Expert discovery completed	April 24, 2015
Experts disclosed by party with initial burden of proof	January 30, 2015
Rebuttal experts disclosed	March 6, 2015
Supplementation of disclosures	40 days before the deadline for completion of fact discovery
All potentially dispositive motions (e.g., summary judgment)	June 19, 2015
Motions challenging admissibility of expert testimony	June 19, 2015
Final pretrial conference	May 27, 2015, at 10:00 a.m.
Proposed pretrial order due	May 13, 2015

SUMMARY OF DEADLINES AND SETTINGS	
Trials	January 19, 2016, at 9:30 a.m.

All other provisions of the prior scheduling orders⁹ shall remain in effect. The schedule adopted in this second amended scheduling order shall not be modified except by leave of court upon a showing of good cause.

IT IS SO ORDERED.

Dated August 12, 2014, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

⁹See ECF docs. 69 and 168.

EXHIBIT 6

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS CO., L.P.,)	
	)	CONSOLIDATED CASES
Plaintiff,)	
)	
v.	)	Case No. 11-2684-JWL
)	
COMCAST CABLE COMMUNICATIONS,)	
LLC, et al.,)	
)	
Defendants.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2685-JWL
)	
CABLE ONE, INC.,)	
)	
Defendant.)	
_____)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
)	
v.	)	Case No. 11-2686-JWL
)	
TIME WARNER CABLE, INC., et al.,)	
)	
Defendants.)	
_____)	

AMENDED SCHEDULING ORDER

These consolidated cases involve claims by Sprint Communications Company, L.P. that defendants are infringing twelve patents related to broadband and packet-based telephony products. Defendants have filed a motion to amend the scheduling order (ECF doc. 69), seeking a six-month extension of all remaining deadlines and a continuance of the trial (**ECF doc. 137**). Defendants assert that the amendment is necessitated by Sprint's delay in producing documents during the discovery period. Although Sprint concedes some delay in its production of documents, it contends that the scheduling-order deadlines may nonetheless be met if the parties exercise diligence. After reviewing the briefs and the record, the court finds good cause for a modest extension of the deadlines, but not the lengthy six-month extension requested by defendants. Thus, the motion to amend the scheduling order is granted, but the relief extended is limited.

Motions to modify a scheduling order are governed by Fed. R. Civ. P. 16(b)(4), which provides that "[a] schedule may be modified only for good cause and with the judge's consent." The party seeking to extend a scheduling-order deadline must establish good cause by proving that despite due diligence it cannot meet the deadline.¹ This normally requires the moving party to show good faith on its part and some reasonable basis for not meeting the deadline.² Whether to modify the scheduling order lies within the court's sound

¹*Manuel v. Wichita Hotel Partners, LLC*, No. 09-1244-WEB-KGG, 2010 WL 3861278, at *1–2 (D. Kan. Sept. 20, 2010) (*quoting Grieg v. Botros*, No. 08-1181-EFM, 2010 WL 3270102, at *3 (D. Kan. Aug. 12, 2010)).

²*Womble v. Salt Lake City Corp.*, 84 F. App'x 18, 20 (10th Cir. 2003) (citing *Putnam v. Morris*, 833 F.2d 903, 905 (10th Cir.1987)).

discretion.³

Defendants assert that they have diligently sought document production from Sprint, but that Sprint has delayed in producing documents and/or produced documents with defective metadata and custodial information. According to defendants, they “no longer have sufficient time in the existing schedule to review all of these documents prior to engaging in the claim construction proceedings,” nor “time to prepare for taking and defending a large number of depositions on complex factual and technical issues prior to beginning expert discovery and the completion of all discovery.”⁴ Sprint concedes that there have been some problems with its production, but nothing out of the ordinary for complex cases involving the production of millions of pages of documents.

Relevant documents in this action essentially fall into two categories: (1) documents produced by Sprint in prior litigation involving six of the patents-in-suit and (2) documents related to the six newly asserted patents-in-suit, particularly documents related to technology and affirmative defenses unique to these cases. During the scheduling conference held on April 11, 2013, Sprint stated that it was prepared to quickly produce documents from its prior litigation. With respect to documents unique to these cases, defendants served common requests for production of documents on May 10, 2013, and individual defendants served document requests in April, May, and June 2013.

³*Paris v. Southwestern Bell Tel. Co.*, 94 F. App’x 810, 816 (10th Cir. 2004).

⁴ECF doc. 138 at 4.

The parties agree that on July 24, 2013, Sprint made a substantial production of its documents produced in prior litigation,⁵ but that metadata problems existed in the electronic documents produced. The metadata problems were resolved in waves by subsequent data production, up to and including a production on November 26, 2013. The parties also agree that Sprint has not yet produced documents specific to the six newly asserted patents-in-suit. They continue to meet and confer regarding a process to facilitate the completion of this discovery.

The scheduling order set a deadline of November 18, 2013, for the parties to exchange proposed claim constructions pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), and set subsequent *Markman* deadlines tied to that exchange. It set an April 25, 2014 date for the beginning of expert discovery, and a July 25, 2014 date for the close of all discovery. The court agrees with defendants that the delay in Sprint's document production makes it difficult for defendants to meet these deadlines. Although, as Sprint notes, the claims-construction process relies primarily on intrinsic and publicly available evidence, extrinsic evidence is not completely irrelevant and the scheduling order clearly contemplated that a good chunk of fact discovery would be completed prior to the deadline for defendants' claim-construction contentions. Defendants should not be penalized in their ability to assert

⁵Sprint explains that this production was later than it had anticipated at the scheduling conference because, rather than simply re-producing documents as they had been produced in previous cases, defendants requested that Sprint produce them in a specific electronic format. ECF doc. 152 at 8.

their claim constructions because of problems—however benign—with Sprint’s document production. Likewise, defendants should have an opportunity to review at least the majority of documents produced by Sprint prior to taking fact depositions in advance of the start of expert discovery.

Defendants have not explained, however, why they believe that a *six-month* extension is needed or justified. Under defendants’ proposal, the discovery period would extend significantly, from sixteen to twenty-four months. Defendants have provided no information of how long it will take them, working with diligence, to process and review Sprint’s documents. Nor have defendants addressed why they have not filed a motion to compel with respect to the requested documents related to the six newly asserted patents-in-suit if discovery into those patents is not proceeding as quickly as defendants believe necessary. The court sees no reason why defendants could not satisfy scheduling order deadlines if they were extended by three-months. Therefore, the scheduling order is amended as follows:

SUMMARY OF DEADLINES AND SETTINGS	
Event	Deadline/Setting
All discovery completed (including experts’ depositions)	October 24, 2014
Experts disclosed by plaintiff	July 25, 2014
Experts disclosed by defendants	August 22, 2014
Rebuttal experts disclosed	September 24, 2014
Supplementation of disclosures	40 days before the deadline for completion of all discovery

SUMMARY OF DEADLINES AND SETTINGS	
All potentially dispositive motions (e.g., summary judgment)	December 12, 2014
Motions challenging admissibility of expert testimony	December 12, 2014
Exchange terms/phrases for construction under <i>Markman</i>	February 18, 2014
Meet and confer to narrow terms phrases to be construed under <i>Markman</i>	March 3, 2014
Joint claim construction chart under <i>Markman</i>	March 7, 2014
Opening <i>Markman</i> briefs	March 21, 2014
Rebuttal <i>Markman</i> briefs	April 17, 2014
<i>Markman</i> hearing	(only if the court deems necessary)
Final pretrial conference	November 19, 2014, at 10:00 a.m.
Proposed pretrial order due	November 7, 2014
Trials	May 12, 2015, at 9:30 a.m.

All other provisions of the original scheduling order shall remain in effect. The schedule adopted in this amended scheduling order shall not be modified except by leave of court upon a showing of good cause.

IT IS SO ORDERED.

Dated December 19, 2013, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

EXHIBIT 7

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS CO., L.P.,)	
	)	CONSOLIDATED CASES
Plaintiff,)	
v.	)	Case No. 11-2684-JWL
)	
COMCAST CABLE COMMUNICATIONS,)	
LLC, et al.,)	
)	
Defendants.)	
_____)	
)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
v.	)	Case No. 11-2685-JWL
)	
CABLE ONE, INC.,)	
)	
Defendant.)	
_____)	
)	
SPRINT COMMUNICATIONS CO., L.P.,)	
)	
Plaintiff,)	
v.	)	Case No. 11-2686-JWL
)	
TIME WARNER CABLE, INC., et al.,)	
)	
Defendants.)	

SCHEDULING ORDER

On April 11, 2013, pursuant to Fed. R. Civ. P. 16(b), the undersigned U.S. Magistrate Judge, James P. O'Hara, conducted a scheduling conference with regard to these three consolidated patent infringement cases. Sprint Communications Co., L.P., which is the plaintiff in all three cases, appeared through counsel, Robert H. Reckers, Bart A. Starr, and Ryan D. Dykal. In Case No. 11-2684, the defendants, Comcast Cable Communications, LLC, Comcast IP Phone, LLC, and Comcast Phone of Kansas, LLC, appeared through counsel, Anthony I. Penwick, David J. Lisson, and John A. Watt. In Case No. 11-2685, the defendant, Cable One, Inc., appeared through counsel, Mitchell D. Lukin and Jay F. Fowler. And in Case No. 11-2686, the defendants, Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC appeared through counsel, David S. Benyacar, Lawrence J. Gotts, and Terrence J. Campbell.

After consultation with the parties, the court enters this scheduling order, summarized in the table that follows:

SUMMARY OF DEADLINES AND SETTINGS	
Event	Deadline/Setting
Plaintiff's settlement proposal	July 12, 2013
Defendants' settlement counter-proposals	July 26, 2013
Confidential settlement reports to magistrate judge	August 9, 2013
Mediation completed	August 30, 2013
Initial disclosures exchanged	April 25, 2013
All discovery completed (including experts' depositions)	July 25, 2014

ESI protocol	May 3, 2013
Sprint's identification of accused products	May 3, 2013
Defendants' invalidity contentions	July 5, 2013
Experts disclosed by plaintiff	April 25, 2014
Experts disclosed by defendants	May 23, 2014
Rebuttal experts disclosed	June 24, 2014
Supplementation of disclosures	40 days before the deadline for completion of all discovery
Jointly proposed protective order submitted to court	May 3, 2013
Motion and brief in support of proposed protective order (only if parties disagree about need for and/or scope of order)	May 3, 2013
Motions to join additional parties or otherwise amend the pleadings	May 17, 2013
All other potentially dispositive motions (e.g., summary judgment)	October 1, 2014
Motions challenging admissibility of expert testimony	October 1, 2014
Exchange of disputed claim terms under <i>Markman</i>	October 18, 2013
Exchange terms/phrases for construction under <i>Markman</i>	November 18, 2013
Meet and confer to narrow terms phrases to be construed under <i>Markman</i>	December 2, 2013
Joint claim construction chart under <i>Markman</i>	December 6, 2013
Opening <i>Markman</i> briefs	December 20, 2013
Rebuttal <i>Markman</i> briefs	January 17, 2014
<i>Markman</i> hearing	(only if the court deems necessary)
Final pretrial conference	August 19, 2014, at 10:00 a.m.
Proposed pretrial order due	August 8, 2014
Trials	April 7, 2015, at 9:30 a.m.

1. Alternative Dispute Resolution (ADR).

a. By **July 12, 2013**, plaintiff shall submit to each defendant group a good faith proposal to settle the case. By **July 26, 2013**, each defendant group shall make a good faith response to plaintiff's proposal, either accepting the proposal or submitting that group's own good faith proposal to settle the case. By **August 9, 2013**, plaintiff and each group of defendants shall submit independently, by way of e-mail or letter (preferably the former), a confidential settlement report addressed to Judge O'Hara (but not the presiding U.S. District Judge, John W. Lungstrum). These reports shall briefly set forth the parties' settlement efforts to date, current evaluations of the case, views concerning future settlement negotiations and the overall prospects for settlement, and a specific recommendation regarding mediation, together with an indication concerning who has been selected by the parties (preferably jointly) to serve as a mediator. These reports need not be served upon opposing parties and **shall not** be filed with the Clerk's Office.

b. Settlement may be enhanced by use of mediation. Counsel shall provide the name of an agreed-upon mediator to the court, and the scheduled date of the mediation, as part of the above-described confidential settlement reports. If the parties cannot agree on a mediator and any party wishes the court to consider a particular mediator or other ADR neutral, then up to three nominations may be provided in the confidential settlement reports; such nominations must include a statement of the nominee's qualifications and billing rates, and confirmation that the nominee already has

pre-cleared all ethical and scheduling conflicts. Absent further order of the court, the mediation shall be held no later than **August 30, 2013**, before the mediator chosen by the parties or selected by the court. An ADR report, on the form located on the court's Internet website, must be filed by defense counsel within 5 days of the scheduled mediation: (<http://www.ksd.uscourts.gov/adr-report/>).

2. Discovery.

a. By **April 25, 2013**, the parties shall exchange the information required by Fed. R. Civ. P. 26(a)(1). The parties are reminded that, although Rule 26(a)(1) is keyed to disclosure of information that the disclosing party "may use to support its claims or defenses, unless solely for impeachment," the advisory committee notes to the 2000 amendments to that rule make it clear that this also requires a party to disclose information it may use to support its denial or rebuttal of the allegations, claim, or defense of another party. In addition to other sanctions that may be applicable, a party who without substantial justification fails to disclose information required by Fed. R. Civ. P. 26(a) or Fed. R. Civ. P. 26(e)(1) is not, unless such failure is harmless, permitted to use as evidence at trial, at a hearing, or on a motion any witness or information not so disclosed. *See* Fed. R. Civ. P. 37(c)(1).

b. All discovery, including but not limited to experts' depositions, shall be commenced or served in time to be completed by **July 25, 2014**.

c. The parties intend to serve disclosures and discovery electronically, as permitted by D. Kan. Rules 5.4.2 and 26.3.

d. Consistent with the parties' agreements as set forth in the planning conference report submitted pursuant to Fed. R. Civ. P. 26(f), electronically stored information (ESI) will be handled as follows: the parties will further meet-and-confer, finalize, and then file an agreement as to the scope and manner of production of ESI by **May 3, 2013**.

e. Consistent with the parties' agreements as set forth in their Rule 26(f) report, they have agreed to an order regarding claims of privilege or of protection. Trial-preparation material asserted after production will be handled with a provision in a proposed protective order which, as stated in paragraph 2(l) below, the parties will submit to the court by May 3, 2013.

f. With the understanding that there is a continuing duty to supplement as this litigation proceeds, the following initial patent disclosures shall be made by the parties:

(1) By **May 3, 2013**, plaintiff shall serve a detailed disclosure of its asserted claims and infringement contentions, sworn to by an authorized corporate representative and certified by counsel of record. For each asserted claim, this shall include disclosure of each accused apparatus, product, device, process, method, act, or other instrumentality of which plaintiff is aware. This shall also include a claim chart identifying specifically where each limitation of each asserted claim is found within each accused apparatus, product, device, process, method, act, or other instrumentality. Plaintiff also shall identify whether each limitation of each asserted claim is alleged to be literally present or present under

the doctrine of equivalents. In each instance where equivalence is asserted, plaintiff shall provide the factual and legal basis for such assertion of equivalence. For each patent that claims priority to an earlier application, plaintiff shall identify the priority date to which each asserted claim allegedly is entitled. With its infringement contentions, plaintiff shall produce to defendants: (a) documents sufficient to evidence each discussion with, disclosure to, or other manner of providing to a third party, or sale of or offer to sell, or any public use of, the claimed invention prior to the date of the application for the patent in suit; (b) the principal documents evidencing the conception, reduction to practice, design, and development of each claimed invention, which were created on or before the date of application for the patent in suit or the priority date identified in claiming priority to an earlier application; (c) a copy of the file history of each patent in suit; and (d) the principal documents evidencing ownership of the patent rights by the party asserting patent infringement. In producing these documents, plaintiff shall separately identify by production number which documents correspond to each category.

(2) By **July 5, 2013**, defendants shall serve a detailed disclosure of their invalidity contentions, sworn to by an authorized corporate representative and certified by counsel of record. This disclosure shall include the identity of each item of prior art that allegedly anticipates each asserted claim or renders it obvious, whether each item of prior art anticipates each asserted claim or renders it obvious,

and identification of any combinations of prior art showing obviousness. This shall also include a claim chart identifying where specifically in each alleged item of prior art each alleged asserted claim is found, including for each element that such party contends is governed by 35 U.S.C. § 112(2), the identity of the structure(s), act(s), or materials(s) in each item of prior art that performs the claimed function. This disclosure shall also include any grounds of invalidity based on 35 U.S.C. § 101, indefiniteness under 35 U.S.C. § 112(2) or enablement or written description under 35 U.S.C. § 112(1) of any of the asserted claims. With their invalidity contentions, defendants shall produce to plaintiff: (a) documentation sufficient to show the operation of any aspects or elements of an accused instrumentality specifically and expressly identified by plaintiff in its infringement contentions (i.e., the core technical documents related to the accused products, including but not limited to operations manuals, product literature, schematics, specifications, source code, and flow charts); and (b) a copy or sample of the prior art identified in defendants' invalidity contentions. Defendants shall separately identify by production number which documents correspond to each category.

(3) To the extent any contention interrogatories cover the same ground covered by the disclosures described in the two preceding subparagraphs, those interrogatories need not be answered.

g. As agreed by the parties, the limitations on interrogatories generally provided by Fed. R. Civ. P. 33(a)(1) are modified as follows: plaintiff may serve up to 10 common interrogatories, which each defendant group shall answer individually. Plaintiff may serve an additional 15 individual interrogatories on each defendant group. Defendants, jointly, may serve up to 15 common interrogatories on plaintiff, and each defendant group may also serve up to 10 individual interrogatories on plaintiff. It is not anticipated that any interrogatories will be served on any defendant by another defendant.

h. Subject to further order of the court, given the complexity of this case, the court lifts the default restrictions imposed by Fed. R. Civ. P. 30 on the number and length of depositions. However, all depositions shall be governed by the written guidelines that are available on the court's Internet website:

(<http://www.ksd.uscourts.gov/deposition-guidelines/>).

i. Disclosures required by Fed. R. Civ. P. 26(a)(2), including reports from retained experts, shall be served by plaintiff by **April 25, 2014**, and by defendants by **May 23, 2014**. Disclosures and reports by any rebuttal experts shall be served by **June 24, 2014**. The parties shall serve any objections to such disclosures (other than objections pursuant to Fed. R. Evid. 702-705, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), or similar case law), within 14 days after service of the disclosures upon them. These objections should be confined to technical objections related to the sufficiency of the written expert disclosures (e.g., whether all of the information required by Rule

26(a)(2)(B) has been provided, such as lists of prior testimony and publications). These objections need not extend to the admissibility of the expert's proposed testimony. If such technical objections are served, counsel shall confer or make a reasonable effort to confer consistent with requirements of D. Kan. Rule 37.2 before filing any motion based on those objections. As noted below, any motion to compel discovery in compliance with D. Kan. Rules 7.1 and 37.2 must be filed and served within 30 days of the default or service of the response, answer, or objection which is the subject of the motion, unless the time for filing such a motion is extended for good cause shown; otherwise, the objection to the default, response, answer, or objection shall be deemed waived. *See* D. Kan. Rule 37.1(b).

j. Supplementations of disclosures under Fed. R. Civ. P. 26(e) shall be served at such times and under such circumstances as required by that rule. In addition, such supplemental disclosures shall be served in any event 40 days before the deadline for completion of all discovery. The supplemental disclosures served 40 days before the deadline for completion of all discovery must identify the universe of all witnesses and exhibits that probably or even might be used at trial. The rationale for the mandatory supplemental disclosures 40 days before the discovery cutoff is to put opposing counsel in a realistic position to make strategic, tactical, and economic judgments about whether to take a particular deposition (or pursue follow-up "written" discovery) concerning a witness or exhibit disclosed by another party before the time allowed for discovery expires. Counsel should bear in mind that seldom should anything be included in the

final Rule 26(a)(3) disclosures, which as explained below usually are filed 21 days before trial, that has not previously appeared in the initial Rule 26(a)(1) disclosures or a timely Rule 26(e) supplement thereto; otherwise, the witness or exhibit probably will be excluded at trial. *See* Fed. R. Civ. P. 37(c)(1).

k. At the final pretrial conference after the close of discovery, the court will set a deadline, usually 21 days prior to the trial date, for the parties to file their final disclosures pursuant to Fed. R. Civ. P. 26(a)(3)(A)(i), (ii) & (iii). As indicated above, if a witness or exhibit appears on a final Rule 26(a)(3) disclosure that has not previously been included in a Rule 26(a)(1) disclosure (or a timely supplement thereto), that witness or exhibit probably will be excluded at trial. *See* Fed. R. Civ. P. 37(c)(1).

l. Discovery in this case may be governed by a protective order. If the parties agree concerning the need for and scope and form of such a protective order, their counsel shall confer and then submit a jointly proposed protective order by **May 3, 2013**. Such jointly proposed protective orders should be drafted in compliance with the written guidelines that are available on the court's Internet website:

(<http://www.ksd.uscourts.gov/guidelines-for-agreed-protective-orders-district-of-kansas/>)

At a minimum, such proposed orders shall include, in the first paragraph, a concise but sufficiently specific recitation of the particular facts in this case that would provide the court with an adequate basis upon which to make the required finding of good cause pursuant to Fed. R. Civ. P. 26(c). If the parties disagree concerning the need for, and/or

the scope or form of a protective order, the party or parties seeking such an order shall file an appropriate motion and supporting memorandum by **May 3, 2013**.

m. To avoid the filing of unnecessary motions, the court encourages the parties to utilize stipulations regarding discovery procedures. However, this does not apply to extensions of time that interfere with the deadlines to complete all discovery, for the briefing or hearing of a motion, or for trial. *See* Fed. R. Civ. P. 29; D. Kan. Rule 6.1(a). Nor does this apply to modifying the requirements of Fed. R. Civ. P. 26(a)(2) concerning experts' reports. *See* D. Kan. Rule 26.4(b).

n. Civil litigation unfortunately often involves improper discovery requests and objections. To ensure discovery in this case is conducted in the "just, speedy, and inexpensive" manner mandated by Fed. R. Civ. P. 1, the parties are respectfully reminded that this court plans to strictly enforce the certification requirements of Fed. R. Civ. P. 26(g). Among other things, Rule 26(g)(1) provides that, by signing a discovery request, response, or objection, it is certified as: (i) consistent with the applicable rules and warranted by existing law or by a nonfrivolous argument for extending, modifying, or reversing existing law, or for establishing new law; (ii) not interposed for any improper purpose, such as to harass, cause unnecessary delay, or needlessly increase the cost of litigation; and (iii) neither unreasonable nor unduly burdensome or expensive, considering the needs of the case, prior discovery in the case, the amount in controversy, and the importance of the issues at stake in the action. If a certification violates these without substantial justification, Rule 26(g)(3) requires the court to impose attorneys' fees

as a sanction on the responsible attorney or party, or both. Therefore, *before* the parties and counsel serve any discovery requests, responses, or objections in this case, lest they incur sanctions later, the court *strongly* suggests that they carefully review the excellent discussion of Rule 26(g) found in *Mancia v. Mayflower Textile Servs. Co.*, 253 F.R.D. 354 (D. Md. 2008).

3. Motions.

a. Any motion for leave to join additional parties or to otherwise amend the pleadings shall be filed by **May 17, 2013**.

b. All other potentially dispositive motions (e.g., motions for summary judgment) shall be filed by **October 1, 2014**. Thirty days shall be allowed for briefs in opposition to such motions, and 21 days shall be allowed for reply briefs, if any.

c. All motions to exclude testimony of expert witnesses pursuant to Fed. R. Evid. 702-705, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), or similar case law, shall be filed no later than **October 1, 2014**. Thirty days shall be allowed for briefs in opposition to such motions, and 21 days shall be allowed for reply briefs, if any.

d. Any motion to compel discovery in compliance with D. Kan. Rules 7.1 and 37.2 shall be filed and served within 30 days of the default or service of the response, answer, or objection which is the subject of the motion, unless the time for filing such a motion is extended for good cause shown. Otherwise, the objection to the default, response, answer, or objection shall be waived. *See* D. Kan. Rule 37.1(b).

4. Other Matters.

a. On February 20, 2013, the court consolidated these cases for pretrial purposes. All future pleadings, motions, and other papers, except for those related to dispositive motions, shall bear the consolidated caption on this order and shall only be filed in the case with the lowest assigned number (i.e., No. 11-2684). Any dispositive motions and other filings related to same shall be filed in the specific case without a consolidated caption.

b. With regard to the construction of claims pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), or similar case law, the following shall apply:

- (1) Exchange of disputed claim terms by **October 18, 2013**;
- (2) Exchange terms/phrases for construction, proposed constructions, and intrinsic support by **November 18, 2013**;
- (3) Meet-and-confer to narrow claim terms/phrases to be construed by the court by **December 2, 2013**;
- (4) Jointly file a Joint Claim Construction Chart with the court, identifying each construction and disputed constructions, as well as any supporting evidence, by **December 6, 2013**;
- (5) Contemporaneous opening *Markman* briefs filed by each side on **December 20, 2013**;

(6) Contemporaneous rebuttal *Markman* briefs filed by each side on **January 17, 2014**; and

(7) A *Markman* hearing will be scheduled if deemed necessary by the court.

c. Pursuant to Fed. R. Civ. P. 16(e), a final pretrial conference is scheduled for **August 19, 2014, at 10:00 a.m.**, in the U.S. Courthouse, Room 236, Kansas City, Kansas, or by telephone if the judge determines the proposed pretrial order is in the appropriate format and there are no other problems requiring counsel to appear in person.

Unless otherwise notified, the undersigned magistrate judge will conduct the conference.

No later than **August 8, 2014**, the parties shall submit a proposed pretrial order (formatted in Word or WordPerfect) as an attachment to an Internet e-mail sent to *ksd_ohara_chambers@ksd.uscourts.gov*. The proposed pretrial order shall not be filed with the Clerk's Office. It shall be in the form available on the court's Internet website (www.ksd.uscourts.gov), and the parties shall affix their signatures according to the procedures governing multiple signatures set forth in paragraphs II(C) of the *Administrative Procedures for Filing, Signing, and Verifying Pleadings and Papers by Electronic Means in Civil Cases*.

d. The parties expect the trial of each of these three cases, if not consolidated, to take approximately 15 days. The cases are set for trial on the court's docket beginning on **April 7, 2015, at 9:30 a.m.** Unless otherwise ordered, this is not a "special" or "No. 1" trial setting. Therefore, during the month preceding the trial docket setting, counsel

should stay in contact with the trial judge's courtroom deputy to determine the day of the docket on which trial of the case will actually begin. The trial setting may be changed only by order of the judge presiding over the trial.

e. The parties are not prepared to consent to trial by a U.S. Magistrate Judge at this time.

f. The arguments and authorities section of briefs or memoranda submitted shall not exceed 30 pages, absent an order of the court.

This scheduling order shall not be modified except by leave of court upon a showing of good cause.

IT IS SO ORDERED.

Dated April 15, 2013, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U.S. Magistrate Judge

EXHIBIT 8

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

COMCAST CABLE COMMUNICATIONS
LLC, et al.,

Defendants.

CONSOLIDATED CASES

Case No. 11-2684-JWL

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

CABLE ONE, INC.,

Defendant.

Case No. 11-2685-JWL

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

TIME WARNER CABLE, INC., et al.,

Defendants.

Case No. 11-2686-JWL

MEMORANDUM AND ORDER

This matter comes before the Court in these consolidated cases on defendants' motion to stay the cases pending the outcome of the appeal by plaintiff Sprint Communications Company L.P. ("Sprint") from orders issued by another court (Doc. # 846, filed in Case No. 11-2684). Case No. 11-2684 has already been stayed.¹ In Case Nos. 11-2685 and 11-2686, for the reasons set forth below, the Court **grants** the motion, the trial settings and all deadlines are vacated in those two cases, and those cases are hereby stayed until further order of the Court.

By Memorandum and Order of October 9, 2014, by which the Court resolved the parties' claim construction disputes, the Court rejected defendants' argument that the term "processing system" found in various patents at issue here was impermissibly indefinite. On May 15, 2015, in *Cox Communications Inc. v. Sprint Communications Company L.P.*, No. 12-487-SLR (D. Del.), the district court in Delaware ruled that the term "processing system" in six of the same patents was indefinite, and it therefore granted summary judgment in favor of Cox on Cox's claims seeking a declaration of those patents' invalidity. On August 27, 2015, the court in *Cox* granted Cox's request for entry of final judgment on those claims pursuant to Fed. R. Civ. P. 54(b), and that judgment was entered by order of September 3, 2015. On October 1, 2015, Sprint filed a notice of appeal to the Court of Appeals for the Federal Circuit from those orders by

¹If the stay previously ordered in Case No. 11-2684 is lifted, that case shall be stayed, upon request, pending outcome of the appeal from the Delaware court for the reasons set forth in this order.

the district court in *Cox*.

Defendants in these cases seek a stay pending the resolution on appeal in *Cox* of the issue of the validity of six of the ten patents at issue here. The Court agrees that a stay is appropriate in this case for prudential reasons. Specifically, in the *Cox* appeal, the Federal Circuit will resolve the issue of the validity of six patents at issue in this case, and that ruling will be binding on this Court. Thus, the appeal will determine the proper scope of this litigation, and awaiting that outcome will avoid the possibility of multiple trials on related patents that (as agreed by the parties) would involve substantially the same defenses, evidence, and witnesses. Thus, a stay promotes interests of judicial economy and potentially saves the parties the costs and burdens of multiple trials as well.²

The Court does not believe that the requested stay would unduly prejudice Sprint. Sprint points to the delay in awaiting the outcome of the appeal, but as defendants note, Sprint delayed for several years in filing these suits, which have then been litigated over a number of years. Moreover, Sprint's prior consent to an ongoing stay in one of these

²Defendants argue that if the cases were not stayed, trials would proceed in this Court only on four patents because the other six patents should be deemed invalid on the basis of collateral estoppel (in light of the *Cox* judgment on those patents). Sprint disputes that collateral estoppel would apply here. The Court need not and does not decide that issue at this time, as either outcome presents a risk of multiple trials—if claims on only four patents were tried, a later trial could be required on the other six patents if the Federal Circuit deemed them valid; if claims on all ten patents were tried now, retrial might be required for claims on four patents if the Federal Circuit affirmed in *Cox*, in light of the fact that, as Sprint seemingly concedes, Sprint has not segregated its damage theories by patent.

three related cases in this Court contradicts any suggestion of urgency by Sprint. Sprint argues that a delay will allow defendants to continue their allegedly infringing activity, but as defendants note, additional infringement may be redressed by additional damages if appropriate, and Sprint has not sought a preliminary injunction to halt such activity. Sprint also argues that a delay will allow additional time for the litigation of “retaliation” suits such as those brought by Cox and Comcast. Sprint has not explained how the litigation of those suits harm the litigation of the present suits on their merits, however, and the parties seeking the stay at this time (the Time Warner and Cable One defendants) have not filed any such suits. The Court thus concludes that any potential prejudice to Sprint from a stay is outweighed by the potential benefits, including judicial economy and avoiding the unnecessary costs and burdens of multiple trials on the same or similar issues involving the same witnesses and evidence.

Sprint argues that other factors weigh against a stay, including the fact that defendants have not demonstrated a likelihood of success in the appeal. The cases cited by Sprint for a consideration of the likelihood of success, however, are inapposite, as they involved a request for a stay pending an appeal in the same case. In this case, the parties seeking the stay (defendants here) are not the parties taking the appeal, nor are they even involved in the other litigation. Moreover, in this case, there are inconsistent rulings from two different courts, which means that there is at least a split of authority that will be resolved by the appellate court ruling. Finally, this Court cannot necessarily rely on its own prior reasoning to decide whether the Federal Circuit will likely reverse

in *Cox*, as defendants presently rely on Federal Circuit opinions issued after this Court's ruling on the issue of indefiniteness, which this Court therefore could not have considered. The fact that the Federal Circuit's ruling will determine whether Sprint may pursue its claims on six patents—which claims are not easily segregated from its claims on the other patents—weighs strongly in favor of a stay. Accordingly, the Court in its discretion grants defendants' motion and orders a stay in these cases pending the outcome of that appeal. Once the appeal is resolved, the parties should so notify the Court.³

IT IS THEREFORE ORDERED BY THE COURT THAT defendants' motion to stay (Doc. # 846, filed in Case No. 11-2684) is hereby **granted**, and Case Nos. 11-2685 and 11-2686 are hereby stayed, with the trial settings and all deadlines vacated, until further order of the Court.

IT IS SO ORDERED.

Dated this 8th day of October, 2015, in Kansas City, Kansas.

s/ John W. Lungstrum
John W. Lungstrum
United States District Judge

³Sprint argues that the Federal Circuit could refuse to accept jurisdiction to decide the invalidity issue at this time. In that event, however, Sprint would be free to seek relief from the stay.

EXHIBIT 9

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS COMPANY L.P.,

Plaintiff,

v.

Case No. 11-2686-JWL

TIME WARNER CABLE, INC., et al.,

Defendants.

PRETRIAL ORDER

Pursuant to Fed. R. Civ. P. 16, a pretrial conference was conducted in this case on July 16, 2015 by U.S. Magistrate Judge James P. O'Hara. The plaintiff, Sprint Communications Company L.P. ("Sprint"), appeared through counsel, B. Trent Webb, Peter E. Strand, Robert H. Reckers, Ryan J. Schletzbaum, and Ryan D. Dykal. The defendants, Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, Time Warner Cable Information Services (Kansas), LLC (collectively, "Time Warner Cable"), appeared through counsel, Lawrence J. Gotts, John T. Ryan, Stephanie N. Grace, and Terrence J. Campbell.

This pretrial order supersedes all pleadings and controls the subsequent course of this case. It will not be modified except by consent of the parties and the court's approval, or by order of the court to prevent manifest injustice. Fed. R. Civ. P. 16(d) & (e); D. Kan. Rule 16.2(c).

1. PRELIMINARY MATTERS.

a. Subject Matter Jurisdiction. Subject matter jurisdiction is invoked under 28 U.S.C. §§ 1331 & 1338(a), and is not disputed.

b. Personal Jurisdiction. The court's personal jurisdiction over the parties is not disputed.

c. Venue. Venue in this case was previously disputed, but the court found that venue properly rests with this forum. *See* D.I. 39.

d. Governing Law. Subject to the court's determination of the law that applies to the case, the parties believe and agree that the parties' claims and defenses are governed by federal law, including 35 U.S.C. § 1 et seq.

2. STIPULATIONS.

a. The following facts are stipulated:

(1) Plaintiff Sprint Communications Company L.P. ("Sprint") is a limited partnership organized and existing under the laws of the State of Delaware, with its principal place of business at 6500 Sprint Parkway, Overland Park, Kansas 66251.

(2) Defendant Time Warner Cable Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(3) Defendant Time Warner Cable LLC was a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(4) Defendant Time Warner Entertainment Company, L.P. was a limited partnership registered to do business in the state of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(5) Defendant Time Warner Entertainment-Advance/Newhouse Partnership is a partnership registered to do business in the State of Kansas and organized under the laws of the State of New York with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(6) Defendant TWC Communications, LLC is a limited liability company registered to do business in the State of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(7) Defendant Time Warner Cable Information Services (Kansas), LLC is a limited liability company registered to do business in the State of Kansas and organized and existing under the laws of the State of Delaware, with its principal place of business at 60 Columbus Circle, New York, New York 10023.

(8) Time Warner Cable Inc. is the direct or indirect parent of each of Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC and Time Warner Cable Information Services (Kansas), LLC (as earlier indicated, collectively, “Time Warner Cable”). Time Warner Cable owns and operates cable systems throughout the United States and in the State of Kansas through one or more of its subsidiaries, affiliates, partners, or other related parties, including but not limited to

Time Warner Cable Inc., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC.

(9) On January 29, 2002, United States Patent No. 6,343,084 (“the ‘084 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S. Patent and Trademark Office (“U.S.P.T.O.”) to Sprint with Joseph Michael Christie (“Christie”) listed as inventor.

(10) The ‘084 Patent expired on May 5, 2014.

(11) The ‘084 Patent issued from U.S. Application No. 09/439,033 (“the ‘033 Application”), filed on November 12, 1999. The ‘033 Application is a continuation of U.S. Application No. 08/525,897 (“the ‘897 Application”), filed on September 8, 1995.

(12) On October 14, 2003, United States Patent No. 6,633,561 (“the ‘3561 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(13) The ‘3,561 Patent expired on May 5, 2014.

(14) The ‘3,561 Patent issued from U.S. Application No. 10/002,850 (“the ‘850 Application”), filed on November 14, 2001. The ‘850 Application is a continuation of U.S. Application No. 09/082,040, which is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(15) On October 8, 2002, United States Patent No. 6,463,052 (“the ‘052 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(16) The ‘052 Patent expired on May 5, 2014.

(17) The ‘052 Patent issued from U.S. Application No. 09/082,182 (“the ‘182 Application”), filed on May 20, 1998. The ‘182 Application is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994. On September 17, 2002, United States Patent No. 6,452,932 (“the ‘932 Patent”) entitled “Method, System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(18) The ‘932 Patent expired on May 5, 2014.

(19) The ‘932 Patent issued from U.S. Application No. 09/499,874 (“the ‘874 Application”), filed on February 7, 2000. The ‘874 Application is a continuation of U.S. Application No. 09/081,891, which is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(20) On October 29, 2002, United States Patent No. 6,473,429 (“the ‘429 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(21) The ‘429 Patent expired on May 5, 2014.

(22) The ‘429 Patent issued from U.S. Application No. 09/353,401 (“the ‘401 Application”), filed on July 15, 1999. The ‘401 Application is a continuation of the ‘897 Application, filed on September 8, 1995.

(23) On October 2, 2001, United States Patent No. 6,298,064 (“the ‘064 Patent”) entitled “Broadband Telecommunications System” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(24) The ‘064 Patent expired on May 5, 2014.

(25) The ‘064 Patent issued from U.S. Application No. 09/504,408 (“the ‘408 Application”), filed on February 15, 2000. The ‘408 Application is a continuation of U.S. Application No. 09/353,401, which is a continuation of the ‘897 Application, filed on September 8, 1995.

(26) On December 11, 2001, United States Patent No. 6,330,224 (“the ‘224 Patent”) entitled “System and Method for Providing Enhanced Services for a Telecommunication Call” was issued by the U.S.P.T.O. to Sprint with Christie and Joseph S. Christie (legal representative), Jean M. Christie (legal representative), and Tracy Lee Nelson listed as inventors.

(27) The ‘224 Patent expires on November 22, 2016.

(28) The ‘224 Patent issued from U.S. Application No. 09/272,655 (“the ‘655 Application”), filed on March 18, 1999. The ‘655 Application is a continuation of U.S. Application No. 08/754,847, filed on November 22, 1996.

(29) On May 13, 2003, United States Patent No. 6,563,918 (“the ‘918 Patent”) entitled “Telecommunications System Architecture for Connecting a Call” was issued by the U.S.P.T.O. to Sprint with Tracy Lee Nelson, William Lyle Wiley, Royal Dean Howell, Michael Joseph Gardner, and Albert Daniel DuRee listed as inventors.

(30) The ‘918 Patent expires on February 20, 2018.

(31) The ‘918 Patent issued from U.S. Application No. 09/026,906, filed on February 20, 1998.

(32) On February 24, 2004, United States Patent No. 6,697,340 (“the ‘340 Patent”) entitled “System and Method for Providing Enhanced Services for a Telecommunication Call” was issued by the U.S.P.T.O. to Sprint with Christie and Joseph S. Christie (legal representative), Jean M. Christie (legal representative), and Tracy Lee Nelson listed as inventors.

(33) The ‘340 Patent expires on November 22, 2016.

(34) The ‘340 Patent issued from U.S. Application No. 10/336,999 (“the ‘999 Application”), filed on January 6, 2003. The ‘999 Application is a continuation of U.S. Application No. 09/272,932, which is a continuation of U.S. Application No. 08/754,847, filed on November 22, 1996.

(35) On October 23, 2007, United States Patent No. 7,286,561 (“the ‘6,561 Patent”) entitled “Method System and Apparatus for Telecommunications Control” was issued by the U.S.P.T.O. to Sprint with Christie listed as inventor.

(36) The ‘6,561 Patent expired on May 5, 2014.

(37) The ‘6,561 Patent issued from U.S. Application No. 10/633,798 (“the ‘798 Application”), filed on August 4, 2003. The ‘798 Application is a continuation of U.S. Application No. 09/082,040, which is a continuation of U.S. Application No. 08/568,551, which is a continuation of the ‘605 Application, filed on May 5, 1994.

(38) Collectively, the 3’561, ‘052, ‘932, ‘429, ‘064, ‘224, ‘918, ‘340, 6’561, and ‘084 patents are the “Asserted Patents.”

(39) Sprint is the owner by assignment of all right, title, and interest to the Asserted Patents.

(40) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1, 4, and 7 of the ‘084 Patent.

(41) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1-3, 7, 15, 22-26, 29, 36, and 38 of the 3’561 Patent.

(42) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1-5, 8-9, and 11 of the ‘052 Patent.

(43) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1, 8, and 16 of the ‘932 Patent.

(44) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1-3 and 5-8 of the ‘429 Patent.

(45) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1-3, 7, 9, and 26 of the ‘064 Patent.

(46) Sprint asserts that Time Warner Cable has infringed and is infringing claims 1-4, 7, 13-14, and 20-21 of the ‘224 Patent.

(47) Sprint asserts that Time Warner Cable has infringed and is infringing claims 11-12 and 19 of the ‘918 Patent.

(48) Sprint asserts that Time Warner Cable has infringed and is infringing claims 11-12, 17, and 20 of the ‘340 Patent.

(49) Sprint asserts that Time Warner Cable has infringed and is infringing claims 11-12, 14, and 18-20 of the 6'561 Patent.

(50) On August 13, 2003, Sprint and Time Warner Cable entered into the “Wholesale Voice Services Technical Trial Agreement,” wherein Time Warner Cable partnered with Sprint to provide voice services in the Kansas City test market.

(51) On December 5, 2003, Sprint and Time Warner Cable entered into and executed the “Wholesale Voice Services Agreement,” wherein Time Warner Cable partnered with Sprint to provide voice services in various markets.

(52) On October 4, 2005, Sprint filed suit in the matter styled *Sprint Communications Co. L.P. v. Vonage Holdings Corp. et al.*, Case No. 05-2433-JWL (D. Kan.) (“Vonage Case”).

(53) On July 27, 2006, Sprint and Time Warner Cable entered into and executed the “Amended and Restated Wholesale Voice Services Agreement.”

(54) In 2008, Sprint filed the following lawsuits: *Sprint Communications Co. L.P. v. Paetec Holding Corp. et al*, Case No. 08-cv-2044-JWL/GLR (D. Kan.); *Sprint Communications Co. L.P. v. Broadvox Holdings, LLC et al.*, Case No. 08-cv-2045-JWL/DJW (D. Kan.); *Sprint Communications Co. L.P. v. Big River Telephone Co., LLC*, Case No. 08-cv-2046-JWL/DJW (D. Kan.); and *Sprint Communications Co. L.P. v. Nuvox, Inc. et al.*, Case No. 08-cv-2047-JWL/JPO (D. Kan.).

(55) On July 30, 2010, Sprint and Time Warner Cable entered into and executed the “Transition Assistance Agreement.”

(56) On December 1, 2011, Time Warner Cable announced an agreement with Verizon Wireless that allowed Time Warner Cable to sell Verizon Wireless products and services.

(57) On December 19, 2011 Sprint filed the present lawsuit.

b. The parties have not yet stipulated to the admissibility of any exhibits for purposes of summary judgment or trial. However, they anticipate filing such stipulations after the court makes its summary judgment rulings.

c. Legible photocopies of exhibits may be used, offered, and received in lieu of originals, subject to all foundational requirements and other objections that might be made to the admissibility of originals, and subject to the right of the party against whom it is offered to inspect an original upon request reasonably in advance of any proposed use of the photocopy. Electronic versions of document exhibits in their native format, such as spreadsheets or presentations, may be offered and received in evidence in lieu of paper or PDF versions. Legible photocopies of United States patents and the content of U.S.P.T.O. file histories may be offered and received in evidence in lieu of certified copies thereof.

d. Each party may use a subset of an exhibit as a standalone exhibit, subject to evidentiary objections. Such subset exhibit shall be marked with the entire exhibit's number followed by a letter, for example, PTX1-A.

e. The parties agree that documents created by a party or subpoenaed third party and thereafter produced by that party or subpoenaed third party during the discovery phase of this litigation are presumed prima facie genuine and authentic.

3. **FACTUAL CONTENTIONS.**

a. Contentions of Plaintiff. Time Warner Cable has infringed one or more of the asserted claims of the Asserted Patents by making, selling, offering to sell, and/or using its Voice over Internet Protocol (“VoIP”) telephony products and services. The products and services accused of infringing the Asserted Patents meet each limitation of one or more of the asserted claims of the Asserted Patents either literally or under the doctrine of equivalents, as those limitations are construed by the court.

The asserted claims of the Asserted Patents are presumed valid under 35 U.S.C. § 282. That presumption can only be overcome if Time Warner Cable provides clear and convincing evidence of their invalidity. Each of the asserted claims of the Asserted Patents is presumed valid independently of the validity of the other claims under 35 U.S.C. § 282. There is no evidence that any single prior art reference discloses, expressly or inherently, each and every limitation of any of the asserted claims, and that the asserted claims therefore are not anticipated or invalid under 35 U.S.C. § 102. There is no evidence that the asserted claims are obvious, in light of the prior art, under 35 U.S.C. § 103; there is no evidence that the prior art, alone or in combination, discloses each limitation of any of the asserted claims; and there are no other rationales to support a conclusion of obviousness. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). The asserted claims satisfy the requirements in 35 U.S.C. § 112. As a result, Time Warner

Cable cannot meet its burden to show the asserted claims in Sprint's Asserted Patents are invalid.

Sprint is entitled to an award of damages in the amount of not less than a reasonable royalty based on Time Warner Cable's infringement of the Asserted Patents, including prejudgment and post-judgment interest.

Time Warner Cable's infringement has been and continues to be willful. This is an "exceptional case" under 35 U.S.C. § 285. The court should treble any damage award and award Sprint its reasonable attorney fees as a result of Time Warner Cable's willful infringement.

Sprint also seeks an injunction preventing Time Warner Cable from continuing to make, sell, offer to sell, and/or use the infringing services. Plaintiff can meet its burden to prove (1) that it has suffered an irreparable injury; (2) that remedies available at law are inadequate to compensate for that injury; (3) that an injunction is warranted when balancing the hardships between plaintiff and Time Warner Cable; and (4) that the public interest would not be disserved by a permanent injunction.

Time Warner Cable cannot meet its burden to prove laches. First, Time Warner Cable cannot prove that Sprint was on notice that Time Warner Cable infringed Sprint's Asserted Patents prior to Time Warner Cable announcing its intention to discontinue using Sprint as a VoIP partner and that it would "Go It Alone." Second, Time Warner Cable cannot claim that Sprint was somehow on earlier constructive notice, prior to Time Warner Cable's announcement, of any practice of Sprint's patented methods that were not part of a managed VoIP solution performed by Sprint using Sprint architecture for

Time Warner Cable. Third, any delay in Sprint filing suit is justified based on the parties' non-disclosure agreements, the limits placed on the use of any confidential information under the various agreements between the parties and the difficulty and expense of discovering infringement, the existence of closely related patents and Sprint's other enforcement actions during the period of alleged delay, and attempts at resolving potential patent infringement issues between the parties. Fourth, Time Warner Cable cannot show proof of economic or evidentiary prejudice from any delay by Sprint to file suit. Fifth, Time Warner Cable cannot demonstrate that it would have done anything different had Sprint sued it before its announcement of its decision to "Go It Alone."

In addition, Time Warner Cable cannot meet its burden to prove equitable estoppel. First, Sprint did not mislead Time Warner Cable into believing it had the right to perform the services protected by Sprint's Asserted Patents. Second, Time Warner Cable cannot establish that it relied on any communications, conduct, or silence by Sprint to determine that it had the right to perform the services protected by Sprint's Asserted Patents. Third, Time Warner Cable cannot prove economic or evidentiary prejudice from any communications, conduct, or silence by Sprint relating to the Asserted Patents.

Time Warner Cable cannot meet its burden to show it has an express or implied license to any of Sprint's Asserted Patents. First, Sprint never granted Time Warner Cable a license to the Asserted Patents. Second, express provisions within various agreements between Sprint and Time Warner Cable state that Time Warner Cable has no implied license to Sprint's Asserted Patents. Third, Sprint did not expressly or implicitly waive any right to enforce one or more of the Asserted Patents.

Time Warner Cable cannot meet its burden to show patent exhaustion. Sprint has never authorized the sale to Time Warner Cable of an article that substantially embodies any Asserted Patent. *See Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617, 638 (2008).

Time Warner Cable cannot meet its burden to show that Sprint should be estopped from invoking the doctrine of equivalents based on representations made in prosecution history of any Asserted Patents. In particular, Sprint, while prosecuting the Asserted Patents, never relinquished its right to argue that the accused media gateways satisfy the “interworking unit” limitation of the Asserted Patents under the doctrine of equivalents.

Time Warner Cable cannot meet its burden to prove this lawsuit is barred by waiver. Sprint’s conduct never induced a reasonable belief that it relinquished its rights to enforce the Asserted Patents against Time Warner Cable.

Time Warner Cable has not met its burden to prove this lawsuit is barred by acquiescence. Sprint filed this lawsuit in a reasonable time after the expiration of its voice services contract with Time Warner Cable and Time Warner Cable informing Sprint that it would “Go-it-Alone.” Sprint expressed no intention to abandon its enforcement rights in the Asserted Patents and did not neglect its rights for such time as implies an intention to abandon them.

Time Warner Cable cannot meet its burden to prove that Sprint’s claims are barred by the doctrines of *in pari delicto* or unclean hands. Time Warner Cable has not asserted *in pari delicto* and unclean hands as defenses in its Answer to Sprint’s Amended Complaint, nor has Time Warner Cable moved for leave to amend to assert these

defenses. Furthermore, Sprint has not committed any wrongdoing that would relieve Time Warner Cable of its liability for patent infringement. To the extent Time Warner Cable contends that Time Warner Cable is at fault for some or all of the alleged infringement, Sprint agrees. As a result, Time Warner Cable should be held strictly liable for all claims for patent infringement identified above.

Finally, Warner Cable cannot demonstrate that Sprint is barred from asserting infringement of U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; and 6,298,064 by the doctrine of collateral estoppel. Judge Robinson's decision in the District of Delaware regarding indefiniteness is not final, and Sprint opposes Cox's request to certify the decision as final under Fed. R. Civ. P. 54(b). Judge Robinson may revisit her decision regarding claim construction at any time prior to final judgment. Additionally, Judge Robinson's decision regarding definiteness does not dispose of all issues within a claim, including equitable defenses asserted by Cox, and therefore, the order is not final for purposes of Rule 54(b). Furthermore, the parties in the District of Kansas have already litigated the indefiniteness question and Judge Lungstrum found the "processing system" claims were not invalid as indefinite on October 9, 2014 (D.I. 435 at 6-13), rejecting the very arguments underlying Time Warner Cable's new collateral estoppel theory.

b. Contentions of Defendant. As outlined in greater detail in Time Warner Cable's interrogatory responses, Sprint knew as of 2003 that, beginning in 2003 and continuing through the date this lawsuit was filed in December 2011, Time Warner Cable purchased VoIP services from several different companies in order to offer phone service

to its customers. Over time, these companies included Sprint, MCI, Pine Tree Communications, and others. Sprint was further aware that Time Warner Cable began providing its own VoIP services (i.e., services not purchased from a third party) to customers in certain markets beginning in 2005 and that it began its nationwide rollout of its own go-it-alone VoIP services late 2010. Before filing suit, Sprint never told TWC that any of the VoIP service that TWC offered to its customers—whether or not purchased from a third party—infringes any Sprint patent.

Sprint is barred by the doctrine of laches from obtaining any damages for alleged infringement prior to December 19, 2011, when Sprint filed this lawsuit. Sprint had actual or constructive notice of Time Warner Cable's infringement of Sprint's Asserted Patents since at least 2003, when Time Warner Cable began providing VoIP-based voice services with Pine Tree and MCI. Sprint cannot meet its burden to prove that the delay in Sprint filing suit is justified. Time Warner Cable further contends that Time Warner Cable has suffered both evidentiary and economic prejudice as a result of Sprint's delay in filing suit. In addition, laches should be presumed because Sprint delayed filing suit for more than six years after it knew or reasonably should have known of Time Warner Cable's alleged infringement.

In addition, Sprint's lawsuit is barred by equitable estoppel. Time Warner Cable reasonably inferred from Sprint's misleading conduct that it had the right to perform the services accused of infringing Sprint's Asserted Patents. Time Warner Cable relied on Sprint's misleading conduct, including its silence. And Time Warner Cable has suffered

both economic and evidentiary prejudice if Sprint's infringement claims are allowed to proceed.

Sprint's lawsuit is barred by waiver because Sprint's conduct was so inconsistent with an intent to enforce the Asserted Patents as to induce a reasonable belief that such right has been relinquished.

Sprint's lawsuit is barred by acquiescence as Sprint knew or ought to have known of an entitlement to enforce the Asserted Patents but neglected to do so for such a time as implies an intention to waive or abandon that right.

Sprint's claims are barred by the doctrine of *in pari delicto* because Sprint's recovery should be barred by its own wrongful conduct. Sprint's claims are barred by the doctrine of unclean hands as Sprint has acted inequitably, unfairly and deceitfully toward Time Warner Cable in a way that is immediately and necessarily related to the relief Sprint seeks. Time Warner Cable's defenses of *in pari delicto* and unclean hands are adequately pled as part of its Fifth Affirmative Defense in its Answer to Sprint's Second Amended Complaint (*See* D.I. #85).

Time Warner Cable is expressly and impliedly licensed to practice the Asserted Patents. First, Sprint granted Time Warner Cable a license to the Asserted Patents through the parties' agreements. Second, Sprint impliedly granted Time Warner cable a license to the Asserted Patents through its actions and inactions throughout the parties' relationship.

Sprint's lawsuit is barred by patent exhaustion because Sprint has authorized the sale to Time Warner Cable of an article that substantially embodies the Asserted Patents.

Each of Sprint's asserted patent claims is invalid, either as anticipated under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), or is obvious under 35 U.S.C. § 103 in view of the prior art identified in defendants' Invalidity Contentions as well as the prior art opined upon in the expert reports of Dr. Henry Houh and Mr. Scott Bradner (collectively, "the prior art"). Time Warner Cable has asserted numerous prior art references which invalidate all of the asserted claims alone or in combination.

In addition, each of Sprint's asserted patent claims is invalid due to failure to meet the requirements of 35 U.S.C. § 112 as expressed in defendants' Invalidity Contentions, the expert report of Dr. Paul Min, and the claim construction declarations of Dr. Leonard Forys. Specifically, the disclosures of the Sprint patents are explicit that the inventions in the possession of the claimed inventors were limited to telecommunications methods and systems that implemented centralized call control and/or that used the ATM protocol, and to the extent that those claims encompasses methods or systems that do not use centralized call control and/or the ATM protocol, including telecommunications methods and systems implemented on IP telecommunications networks, they are unsupported by the specifications of Sprint's asserted patents.

Time Warner Cable has not infringed and does not infringe, literally or under the doctrine of equivalents, any valid and enforceable claim of the Asserted Patents.

Sprint should be estopped from invoking the doctrine of equivalents based on representations made in prosecution history of any Asserted Patents.

Sprint is barred from asserting infringement of U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; and 6,298,064 by the doctrine of collateral

estoppel. On May 15, 2015, Judge Robinson of the District of Delaware entered summary judgment that the common claim limitation “processing system” in those patents is indefinite. The issue has been finally adjudicated on the merits by Judge Robinson, and Sprint had a full and fair opportunity to litigate the issue.

Sprint cannot establish that any alleged infringement by Time Warner Cable has been willful. There is no factual basis upon which Sprint can meet the heavy evidentiary burden of proof to establish willful infringement, or the additional burden of establishing this case was “extraordinary” so as to warrant enhanced damages or other relief for willful infringement.

Sprint has not met its burden to prove that it is entitled to an award of damages, nor that it has met its burden to prove what the amount of a reasonable royalty based on Time Warner Cable’s alleged infringement of the Asserted Patents would be. In addition, Sprint is not entitled to prejudgment interest.

Sprint has not met its burden to seek an injunction. First, seven of the ten Asserted Patents have expired. Second, Sprint waited over eight years after Time Warner Cable began offering the accused VoIP services with Sprint’s knowledge and participation before filing this lawsuit. Third, Sprint cannot prove any irreparable injury or that remedies available at law are inadequate to compensate for that injury. Fourth, a balance of hardships weighs against an injunction. Fifth, the public interest would be disserved by an injunction.

4. LEGAL CLAIMS AND DEFENSES.

a. Legal Claims of Plaintiff. Plaintiff asserts that it is entitled to recover upon the following theories:

(1) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1, 4, and 7) of the '084 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 1 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(2) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1-3, 7, 15, 22-26, 29, 36, and 38) of the '3,561 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 2 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(3) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1-5, 8-9, and 11) of the '052 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 3 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(4) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1, 8, and 16) of the '932 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 4 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(5) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1-3 and 5-8) of the '429 patent either literally or under the doctrine of equivalents,

by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 5 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(6) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1-3, 7, 9, and 26) of the ‘064 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 6 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(7) Time Warner Cable has infringed one or more of the asserted claims (Nos. 1-4, 7, 13-14, and 20-21) of the ‘224 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 8 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(8) Time Warner Cable has infringed one or more of the asserted claims (Nos. 11-12 and 19) of the ‘918 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 9 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(9) Time Warner Cable has infringed one or more of the asserted claims (Nos. 11-12, 17, and 20) of the ‘340 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 11 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(10) Time Warner Cable has infringed one or more of the asserted claims (Nos. 11-12, 14, and 18-20) of the ‘6,561 patent either literally or under the doctrine of equivalents, by making, selling, or offering to sell, and/or using certain VoIP telephony systems (Count 12 of Second Amended Complaint, D.I. 82). *See, e.g.*, 35 U.S.C §§ 271, 281.

(11) The asserted claims of Asserted Patents are presumed valid and enforceable, and there exists no clear and convincing evidence that could overcome that presumption. Under 35 U.S.C § 284, plaintiff is entitled to an award of damages adequate to compensate for Time Warner Cable’s infringement. These damages must be in an amount no less than a reasonable royalty. *See* 35 U.S.C § 284.

(12) As relates to Sprint’s claims under all of the Asserted Patents, this is an exceptional case under 35 U.S.C § 285, and accordingly Sprint should be awarded its reasonable attorney fees.

(13) An injunction should be entered to prevent Time Warner Cable from continuing to infringe the ‘224, ‘918, and ‘340 patents, pursuant to 35 U.S.C. § 283.

(14) Under 35 U.S.C. § 284, because of Time Warner Cable’s willful infringement of the ‘3,561, ‘052, ‘932, ‘429, and ‘064 patents, the court should treble the amount of damages awarded to Sprint.

(15) Sprint is entitled to award of prejudgment and post-judgment interest and costs in accordance with 35 U.S.C. § 284.

(16) Sprint’s Asserted Patents are definite and the Federal Circuit’s en banc opinion in *Williamson v. Citrix Online*, No. 2013-1130 (Fed. Cir. June 16, 2015)

does not alter Judge Lungstrum's prior order declining to apply 35 U.S.C. § 112(f) to any of the claims or terms at issue. (D.I. 435 at 7-8).

b. Defenses of Defendant. Time Warner Cable asserts the following defenses and affirmative defenses:

(1) Time Warner Cable does not infringe any asserted claim of the Asserted Patents. (D.I. #85, First and Second Affirmative Defenses at ¶¶ 108, 109.)

(2) Time Warner Cable's VoIP network does not meet every limitation of any claim of any of the Asserted Patents, either literally or under the doctrine of equivalents. (D.I. #85, First and Second Affirmative Defenses at ¶¶ 108, 109.)

(3) Time Warner Cable has not willfully infringed any Asserted Patent. (D.I. #85, at ¶ 41.)

(4) The Asserted Patents are invalid pursuant to 35 U.S.C. § 102 for anticipation. (D.I. #85, Third Affirmative Defense at ¶ 110.)

(5) The Asserted Patents are invalid pursuant to 35 U.S.C. § 103 for obviousness. (D.I. #85, Third Affirmative Defense at ¶ 110.)

(6) The Asserted Patents are invalid for failure to meet the requirements of 35 U.S.C. § 112. (D.I. #85, Third Affirmative Defense at ¶ 110.)

(7) The relief sought is barred by waiver and acquiescence. (D.I. #85, Fifth Affirmative Defense at ¶¶ 112–113.)

(8) The relief sought is barred by the doctrines of *in pari delicto* and unclean hands. (D.I. #85, Fifth Affirmative Defense at ¶¶ 112–113.)¹

(9) The relief sought is barred by laches and equitable estoppel. (D.I. #85, Fifth Affirmative Defense at ¶¶ 112–113.)

(10) The relief sought is barred because Sprint granted Time Warner Cable an express and implied license. (D.I. #85, Sixth Affirmative Defense at ¶ 114.)

(11) The relief sought is barred by the doctrine of patent exhaustion. (D.I. #85, Sixth Affirmative Defense at ¶ 114.)

(12) Sprint is barred from any relief or recovery for infringement of the ‘932, ‘3,561, ‘052, ‘6,561, ‘429 and ‘064 Patents by the doctrine of collateral estoppel.

(13) Regardless of the preclusive effect of the Delaware invalidity decision, in light of the Federal Circuit’s en banc opinion in *Williamson v. Citrix Online*, No. 2013-1130 (Fed. Cir. June 16, 2015), the claims containing the limitations addressed by the parties in D.I. 317, 340 and 360 are indefinite and therefore invalid as a matter of law.

5. DAMAGES AND NON-MONETARY RELIEF REQUESTED.

a. Plaintiff’s Damages. Sprint contends that Time Warner Cable began infringing the Asserted Patents at least as early as September 2010. As a result of Time Warner Cable’s past and continuing infringement of the Asserted Patents, Sprint is

¹ According to Time Warner Cable, its defenses of *in pari delicto* and unclean hands are adequately pled as part of its fifth affirmative defense in its answer to Sprint’s second amended complaint. (See D.I. #85). Sprint disagrees.

entitled to damages in an amount not less than a reasonable royalty. *See* 35 U.S.C §§ 284, 286. Sprint's expert report, dated April 3, 2015, set forth that at the time of the hypothetical negotiation, Sprint and Time Warner would have agreed on a royalty of at least \$1.50 per subscriber per month for use of the patents-in-suit through the expiration of the Asserted Patents on May 5, 2014, after which the royalty would be at least \$0.13 per subscriber per month through the remainder of the damages period. Thus, reasonable royalty damages to Sprint as a result of Time Warner Cable's infringement of the Asserted Patents through December 31, 2014 are \$155.3 million. Prior to the trial in this matter, and pursuant to the Federal Rules, plaintiff will supplement these numbers.

Alternatively, in the event the court determines that the appropriate damages start date is December 19, 2011, Sprint's experts have concluded that reasonable royalty damages to Sprint as a result of Time Warner Cable's alleged infringement of the Asserted Patents through December 31, 2014 are \$131.7 million. Because Time Warner Cable continues to sell its infringing services, this damage amount is increasing and will continue to increase through trial and until an injunction is entered.

Sprint also seeks its costs, prejudgment, and post-judgment interest on all damages.

In addition, and because of Time Warner Cable's willful infringement of the asserted patents, the court should treble the amount of damages awarded by the jury under 35 U.S.C § 284. Finally, Time Warner Cable's willful infringement renders this an exceptional case under 35 U.S.C § 285, and accordingly plaintiff should be awarded its reasonable attorney fees in an amount to be determined after trial.

b. Defendant's Damages. None claimed.

Time Warner Cable contends that Sprint is not entitled to any damages because the asserted claims of the Asserted Patents are invalid and not infringed, and because the relief sought by Sprint is barred in whole or in part by the doctrines of laches, equitable estoppel, waiver, acquiescence, *in pari delicto*, unclean hands, implied license, express license, patent exhaustion, and collateral estoppel.

If Sprint is entitled to damages, then Sprint is entitled to no more than a lump sum royalty at or near \$0.00.

Sprint is not entitled to costs or to prejudgment interest on any damages. Should Time Warner Cable prevail on its defenses, and the court finds this is an exceptional case under 35 U.S.C. § 285, Time Warner Cable should be awarded its costs and reasonable attorney fees in an amount to be determined after trial.

6. AMENDMENTS TO PLEADINGS.

The court has granted Time Warner Cable's motion leave to amend its answer to assert the defense of collateral estoppel in light of Judge Robinson's May 15, 2015 summary judgment ruling in the District of Delaware that six of the Asserted Patents are indefinite (*see* ECF doc. 852 in Case No. 11-2684).

As indicated in the footnote to paragraph 4(b)(8) above, there's a disagreement between Time Warner Cable and Sprint about whether certain defenses have been adequately pled. Time Warner Cable intends to file a motion for leave to clarify and/or amend the fifth affirmative defense in its answer which currently alleges that "the relief sought by Sprint is barred in whole or in part by equitable doctrines, including waiver,

acquiescence, laches, and/or estoppel.” As part of this motion, Time Warner Cable will seek leave of the court to identify the equitable doctrines of unclean hands and *in pari delicto* in its fifth affirmative defense.

7. DISCOVERY.

Under the scheduling order and any amendments, all discovery was to have been completed by June 30, 2015.

Discovery is complete, except as specifically noted below. There is one expert deposition outstanding, which the parties have agreed to complete by August 31, 2015. In addition, on July 22, 2015, Time Warner Cable will produce one additional 30(b)(6) witness, Andy Block, on thirty-five 30(b)(6) topics, as well as in his personal capacity.

Sprint reported at the pretrial conference that non-party Cisco produced a privilege log in response to Sprint’s document subpoena on June 30, 2015. Sprint believes it is entitled to (and that Cisco has promised) a Rule 30(b)(6) deposition of Cisco pursuant to Sprint’s deposition subpoena. Time Warner Cable disagrees.

The parties anticipated that Sprint would submit a supplemental expert report regarding the court-ordered deposition concerning the ‘918 patent resulting from the recent motion practice (see ECF doc. 752 in Case No. 11-2684), and anticipate that Time Warner Cable will provide a responsive expert report, and that both sides will seek to depose the other side’s expert on the opinions contained in those reports. Sprint recently provided a supplemental report, which Time Warner Cable is evaluating.

Additional unopposed discovery may continue after the deadline for completion of discovery so long as it does not delay the briefing of or ruling on dispositive motions or

other pretrial preparations. Although this additional unopposed discovery may be conducted beyond the deadline for completion of discovery if all parties are in agreement to do so, under these circumstances the court will not be available to resolve any disputes that arise during the course of such extended discovery. Nothing in this paragraph shall limit the ability of the parties to seek resolution from the court of any disputes arising from discovery that is pursuant to rulings that necessitated discovery after the deadline.

8. MOTIONS.

a. Pending Motions. On July 10, 2015, Time Warner Cable and the defendants in Case Nos. 11-2684 and 11-2685 filed a consolidated motion to stay all three cases until the Federal Circuit affirms or reverses the finding of invalidity of certain patents-in-suit in *Cox Communications, Inc. v. Sprint Communications L.P.*, Case No. 12-cv-00487-SLR in the District of Delaware (ECF doc. 846 in Case No. 11-2684).

b. Additional Pretrial Motions. Sprint anticipates filing a motion to bifurcate trial of Time Warner Cable's equitable defenses, which are questions of law, from trial of the liability issues of infringement, validity, and damages. According to Sprint, issues of infringement, validity, and damages should be tried by jury, and if the jury finds Time Warner Cable infringed one or more claims of a valid patent, then a separate bench trial before Judge Lungstrum should be held on Time Warner Cable's equitable defenses, including laches, equitable estoppel, waiver, and acquiescence. According to Time Warner Cable, issues of infringement, validity, damages, laches, equitable estoppel, waiver, and acquiescence all should be tried together because of the substantial overlap of the evidence, as the parties' extensive relationship is relevant to

both damages and Time Warner Cable's defenses. Moreover, were the court to sever the trial of equitable issues, Time Warner Cable believes it would make little sense to try those issues after the trial of validity, infringement, and damages issues, given the potentially unnecessary inconvenience to a jury and the fact that a ruling with respect to equitable issues could determine the relevant period for which a jury would need to determine damages. As discussed during the pretrial conference, Sprint's anticipated motion for bifurcation, and likewise Time Warner Cable's anticipated motion for an advisory jury on equitable defenses, must be filed within 5 business days of the date on which Judge Lungstrum files his summary judgment rulings in this case, or by **November 23, 2015**, whichever date is earlier. Responsive briefs with regard to these motions are due 5 business days after the motions are filed. Due to the related and overlapping nature of these motions, as discussed during the pretrial conference, no reply briefs shall be allowed.

Both Sprint and Time Warner Cable anticipate filing motions for summary judgment motions and motions in limine.

The dispositive-motion deadline, as established in the scheduling order and any amendments, is **July 31, 2015**. As provided by the court's original scheduling order (ECF doc. 69), 30 days shall be allowed for briefs in opposition to such motions, and 21 days for reply briefs, if any.

The parties should follow the summary-judgment guidelines available on the court's website:

<http://www.ksd.uscourts.gov/summary-judgment/>

The arguments and authorities section of briefs or memoranda must not exceed 30 pages, absent an order of the court. As discussed during the pretrial conference, Sprint and Time Warner Cable each shall file no more than a single motion for summary judgment that asserts all their respective arguments. The supporting briefs shall contain no more than 30 pages of argument. In addition, though, all of the defendants in Case Nos. 11-2684, 11-2685, and 11-2686 are granted leave to file a joint motion for summary judgment, focused entirely on their invalidity and collateral estoppel defenses, with a supporting brief containing no more than 20 pages of argument; Sprint's responsive brief shall be limited to 20 pages of argument.

c. Motions Regarding Expert Testimony. All motions to exclude testimony of expert witnesses pursuant to Fed. R. Evid. 702-705, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), or similar case law, must be filed in accordance with the dispositive-motion deadline stated above.

9. TRIAL.

The trial docket setting for the first of the three consolidated cases, as established in the scheduling order and any amendments, is **January 19, 2016, at 9:30 a.m., in Kansas City, Kansas.** Currently, this case is set to be tried with a jury.

The court will attempt to decide any timely filed dispositive motions approximately 60 days before trial. If no dispositive motions are timely filed, or if the

case remains at issue after timely dispositive motions have been decided, then the trial judge will convene another pretrial conference to discuss, among other things, the setting of deadlines for filing final witness and exhibit disclosures, exchanging and marking trial exhibits, designating deposition testimony for presentation at trial, motions in limine, proposed instructions in jury trials, and proposed findings of fact and conclusions of law in bench trials, if necessary.

As provided by the court's third amended scheduling order (ECF doc. 525 in Case No. 11-2684), a limine conference will be held on **January 8, 2016, at 10:00 a.m.**

IT IS SO ORDERED.

Dated July 24, 2015, at Kansas City, Kansas.

s/ James P. O'Hara
James P. O'Hara
U. S. Magistrate Judge

CERTIFICATE OF SERVICE

Counsel are hereby notified that, unless the undersigned Magistrate Judge receives objections, corrections, or revisions to the foregoing proposed pretrial order by **July 23, 2015**, it will be signed and filed. If revisions are requested, counsel shall state in writing on a separate document in letter form the requested revision, identifying the paragraph number and the reason for such revision, and serve on opposing counsel and to the Magistrate Judge. Counsel shall confer about all such revisions before communicating them to the Magistrate Judge. Counsel are encouraged (but not required) to submit jointly any requests for revisions. At a minimum, written requests for revisions shall state whether opposing counsel consents or objects, and summarize the bases of all objections. All such requests for revisions shall be submitted via e-mail to:

ksd_ohara_chambers@ksd.uscourts.gov

This proposed pretrial order was served on July 16, 2015, on the following:

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Stephanie N. Grace stephanie.grace@lw.com

Terrence J. Campbell tcampbell@barberemerson.com

s/ James P. O'Hara

James P. O'Hara

U.S. Magistrate Judge

EXHIBIT 10

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

COMCAST CABLE COMMUNICATIONS
LLC, et al.,

Defendants.

CONSOLIDATED CASES

Case No. 11-2684-JWL

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

CABLE ONE, INC.,

Defendant.

Case No. 11-2685-JWL

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

TIME WARNER CABLE, INC., et al.,

Defendants.

Case No. 11-2686-JWL

ORDER

The Court conducted a telephone conference on this date in these consolidated cases. Based on the arguments made at the conference and in the parties' recent submissions, the Court rules as follows:

1. All stays entered in these cases are hereby lifted.
2. Case No. 11-2685 (*Cable One*) is hereby set for trial beginning on **January 30, 2017**.
3. Case No. 11-2686 (*Time Warner*) is hereby set for trial to begin no earlier than **February 13, 2017**.
4. Case No. 11-2684 (*Comcast*) is hereby set for trial to begin no earlier than **March 6, 2017**.
5. On or before **October 12, 2016**, the Time Warner defendants shall file any necessary motion relating to changes in their names or ownership. The motion shall so indicate if it is unopposed.
6. Plaintiff's response to the Time Warner defendants' pending motion for a protective order (Doc. # 239) shall be due by **October 12, 2016**, with any reply brief due by **October 19, 2016**.
7. On or before **October 14, 2016**, plaintiff and the defendant groups (including in *Comcast*) may each file a single supplemental brief in support of their already-filed briefs relating to all of the presently-pending summary judgment motions and *Daubert* motions. Each brief shall address only new caselaw issued since the time the particular cases were stayed (August 6, 2015, for Case No. 11-2684; October 8,

2015, for Case Nos. 11-2685 and 11-2686). Each brief (only one for plaintiff and one for each defendant group) will be limited to ten double-spaced pages (exclusive of case caption, signature page, and certificate of service). With respect to such briefs, no introduction is needed, the parties shall not reargue material covered in their previous briefs, and no new arguments are permitted unless they arise from new caselaw (and could not reasonably have been raised previously). In Case No. 11-2684 (*Comcast*), the parties' responses to the pending summary judgment and *Daubert* motions as supplemented are due on **October 28, 2016**, and reply briefs are due on **November 14, 2016**. In Case Nos. 11-2685 (*Cable One*) and 11-2686 (*Time Warner*), responses to the supplemental briefs, also limited to ten pages, are due on **October 21, 2016**, with no reply briefs permitted.

8. Plaintiff shall file any motion for bifurcation and defendants shall file any motions for advisory juries by **December 12, 2016**. Response briefs are due on **December 19, 2016**, and no reply briefs will be permitted.

9. The parties shall meet and confer regarding any additional discovery or expert deadlines, and shall report to the Court and file any necessary motion by **October 14, 2016**.

10. The limine conference and any additional pretrial deadlines shall be set by future order in each case.

IT IS SO ORDERED.

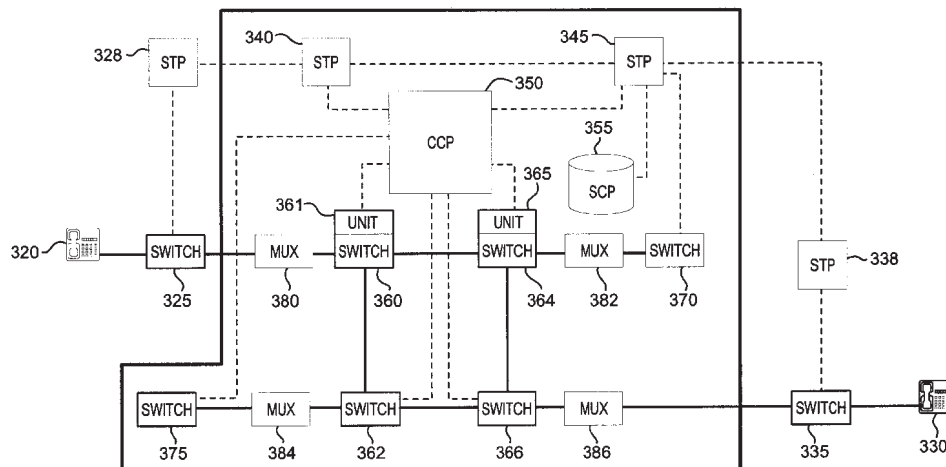
Dated this 5th day of October, 2016, in Kansas City, Kansas.

s/ John W. Lungstrum
John W. Lungstrum
United States District Judge

Exhibits 11-15

REDACTED IN THEIR
ENTIRETY

EXHIBIT 16



One advantage of the present invention is that it allows narrowband switches be used interchangeably in a narrowband/broadband hybrid network. Any narrowband switch may be taken out of service without re-routing traffic and changing routing logic in each switch. The CCP is simply programmed not to select the given narrowband switch for call processing. The CCP will route calls over the broadband network to another narrowband switch. This flexibility also allows the telecommunications network to easily transfer narrowband switch loads.

An important advantage of this system is that both the advantages of broadband and narrowband systems are utilized. The transmission capabilities of a broadband network are coupled with the narrowband network's ability to apply features. For example, the CCP can use the broadband network to substantially make the call connection from origination to destination. The CCP diverts the traffic to the narrowband network for processing. The narrowband network can apply features, such as billing and routing. Once processed, the traffic is directed back to the broadband network for completion of the connection. The CCP can then use the routing information generated by the narrow band system to route the traffic through the broadband system to the destination. As a result, the telecommunications system does not have to develop a billing or "800" routing feature for its broadband network. This can be accomplished because the CCP allows both networks to work together intelligently.

Another advantage of the present invention is the elimination of a substantial percentage of the DS0 ports required on the existing narrowband switches. In the current architectures, narrowband switches are interconnected to each other. A substantial percentage of the switch ports are taken up by these connections. By eliminating the need for the switches to connect to each other, these ports can be eliminated. Each narrowband switch is only connected to the broadband system. This architecture requires fewer ports per switch. By load balancing with the CCP, the number of ports required on busy switches can be reduced. The architecture in the present invention does require additional broadband ports, but these can be added at a significant cost saving versus narrowband ports.

Additionally, the narrowband switches no longer signal each other since all signaling is directed to the CCP. This concentration accounts for a reduction in required signaling link ports. This reduction possibly could result in the elimination of STPs.

As mentioned above, an advantage of the present invention is its ability to treat narrowband switches, or groups of narrowband switches, interchangeably. The CCP can pick any narrowband switch to process a particular call. This allows the network to pull narrowband switches out of service without taking extreme measures. In turn, this simplifies the introduction of new services into the network. A switch can be pulled out of service simply by instructing the CCP to stop selecting it. The switch can be re-programmed and put back into service. Then the next switch can then be updated in the same manner until all of the switches are implementing the new service. Switches can also be easily pulled to test developing applications.

This narrowband switch flexibility also allows the CCP to balance switch loads through the network during peak times, or during mass calling events. This eliminates the need to implement complex and expensive load balancing features in the narrowband network. Instead of programming the several switches to balance among themselves, one command to the CCP can achieve this.

Another advantage is the reduction in call set-up time. Most large networks require that a call pass through more than two narrowband switches arranged in a hierarchical fashion. One large network employs a flat architecture in which all narrowband switches are interconnected, but this still requires that the call pass through two narrowband switches. In the present invention, only one narrowband switch is required for each call. The use of broadband switches to set-up and complete the call represents significant time savings.

What is claimed is:

1. A method of operating a processing system to control a packet communication system for a user communication, the method comprising:

receiving a signaling message for the user communication from a narrowband communication system into the processing system;

processing the signaling message to select a network code that identifies a network element to provide egress from the packet communication system for the user communication;

generating a control message indicating the network code; transferring the control message from the processing system to the packet communication system

receiving the user communication in the packet communication system and using the network code to route the user communication through the packet communication system to the network element; and

transferring the user communication from the network element to provide egress from the packet communication system.

2. The method of claim 1 wherein processing the signaling message comprises processing an Initial Address Message (IAM).

3. The method of claim 1 wherein processing the signaling message comprises processing a Signaling System #7 (SS7) message.

4. The method of claim 1 wherein processing the signaling message comprises processing a Q.931 message.

5. The method of claim 1 wherein processing the signaling message comprises processing in-band signaling.

6. The method of claim 1 wherein processing the signaling message to select the network code comprises processing caller number information in the signaling message.

7. The method of claim 1 wherein processing the signaling message to select the network code comprises processing called number information in the signaling message.

8. The method of claim 1 wherein processing the signaling message to select the network code comprises processing a point code in the signaling message.

9. The method of claim 1 wherein processing the signaling message to select the network code comprises processing a circuit identification code in the signaling message.

10. The method of claim 1 wherein processing the signaling message to select the network code comprises generating and transferring a query to a service control point and receiving and processing a response from the service control point.

11. The method of claim 1 further comprising processing geographic information to select the network code.

12. The method of claim 1 further comprising processing load balancing information to select the network code.

13. The method of claim 1 further comprising processing time of day information to select the network code.

14. The method of claim 1 further comprising processing a network alarm to select the network code.

23

15. The method of claim 1 wherein the network code comprises a logical address of the network element.

16. The method of claim 1 further comprising processing the signaling message to select a DS0 connection to provide the egress from the packet communication system.

17. The method of claim 1 further comprising processing the signaling message to select a wireless connection to provide the egress from the packet communication system.

18. The method of claim 1 wherein the network element comprises a switch.

19. The method of claim 1 wherein the network element comprises a multiplexer.

20. The method of claim 1 wherein the network element comprises a server.

21. The method of claim 1 wherein the network element comprises a service platform.

22. The method of claim 1 wherein the user communication comprises voice.

23. The method of claim 1 wherein the processing system is external to any communication switches.

24. A method of operating a processing system to control a packet communication system for a user communication, the method comprising:

selecting a network code that identifies a network element to provide egress for the user communication from the packet communication system to a narrowband communication system;

generating a control message indicating the network code and transferring the control message from the processing system to the packet communication system; and generating a signaling message for the user communication and transferring the signaling message from the processing system to the narrowband communication system;

receiving the user communication in the packet communication system and using the network code to route the user communication through the packet communication system to the network element; and

transferring the user communication from the network element to the narrowband communication system to provide egress from the the packet communication system.

24

25. The method of claim 24 wherein generating and transferring the signaling message comprises generating and transferring an Initial Address Message (IAM).

26. The method of claim 24 wherein generating and transferring the signaling message comprises generating and transferring a Signaling System #7 (SS7) message.

27. The method of claim 24 wherein generating and transferring the signaling message comprises generating and transferring a Q.931 message.

28. The method of claim 24 wherein generating and transferring the signaling message comprises generating and transferring in-band signaling.

29. The method of claim 24 wherein the network code comprises a logical address of the network element.

30. The method of claim 24 further comprising selecting a DS0 connection to provide the egress from the packet communication system and identifying the DS0 in the signaling message.

31. The method of claim 24 further comprising selecting a wireless connection to provide the egress from the packet communication system and identifying the wireless message in the signaling message.

32. The method of claim 24 wherein the network element comprises a switch.

33. The method of claim 24 wherein the network element comprises a multiplexer.

34. The method of claim 24 wherein the network element comprises a server.

35. The method of claim 24 wherein the network element comprises a service platform.

36. The method of claim 24 wherein the user communication comprises voice.

37. The method of claim 24 wherein the user communication comprises data.

38. The method of claim 24 wherein the processing system is external to any communication switches.

* * * * *

(12) **United States Patent**
Christie

(10) **Patent No.:** **US 6,452,932 B1**
(45) **Date of Patent:** ***Sep. 17, 2002**

(54) **METHOD, SYSTEM AND APPARATUS FOR TELECOMMUNICATIONS CONTROL**

4,853,955 A 8/1989 Thorn et al.
4,979,118 A 12/1990 Kheradpir
4,991,204 A 2/1991 Yamamoto et al.

(75) Inventor: **Joseph Michael Christie**, San Bruno, CA (US)

(List continued on next page.)

(73) Assignee: **Sprint Communications Company, L.P.**, Overland Park, KS (US)

FOREIGN PATENT DOCUMENTS

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

CH	685033 A5	2/1995
DE	4225203 A1	12/1992
DE	4447230 A1	7/1995
EP	0403414 A2	12/1990
EP	0426911 A1	5/1991
EP	0442754 A2	8/1991

(List continued on next page.)

This patent is subject to a terminal disclaimer.

OTHER PUBLICATIONS

(21) Appl. No.: **09/499,874**

(22) Filed: **Feb. 7, 2000**

Related U.S. Application Data

(63) Continuation of application No. 09/081,891, filed on May 20, 1998, which is a continuation of application No. 08/568,551, filed on Dec. 7, 1995, now Pat. No. 5,825,780, which is a continuation of application No. 08/238,605, filed on May 5, 1994, now abandoned.

Ohta, S., et al., A Dynamically Controllable ATM Transport Network Based On The Virtual Path Concept, pp. 1272-1276, Communications For The Information Age, Globecom '88, Conference Record, vol. III, Nov. 28-Dec. 1, 1988.

Barr, W.J., et al., The TINA Initiative, IEEE Communications Magazine, vol. 31, No. 3, New York (US), pp. 70-76, Mar. 1993.

(List continued on next page.)

(51) **Int. Cl.⁷** **H04L 12/28; H04L 12/56**

(52) **U.S. Cl.** **370/410; 379/230**

(58) **Field of Search** 370/395.1, 389, 370/396, 397, 398, 399, 400, 409, 410, 466, 467, 426, 422, 385, 386, 352-356; 379/229, 230, 231, 219, 221.1

Primary Examiner—Ajit Patel

(74) *Attorney, Agent, or Firm*—Harley R. Ball; Steven J. Funk; Kevin D. Robb

(57) **ABSTRACT**

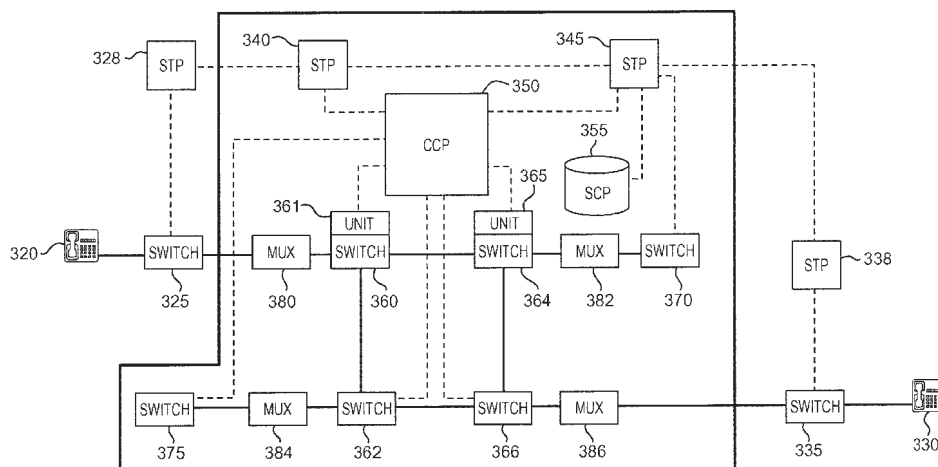
The present invention includes a method, system, and apparatus for providing communication control. The invention includes a method in which signaling is processed externally to a switch before it is applied by the network elements. The processor is able to select network characteristics and signal the network elements based the selections. A network employing the processing method is also included, as well as a signaling system that employs the processing method.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,201,889 A	5/1980	Lawrence et al.
4,348,554 A	9/1982	Asmuth
4,720,850 A	1/1988	Oberlander et al.
4,736,364 A	4/1988	Basso et al.
4,748,658 A	5/1988	Gopal et al.
4,763,317 A	8/1988	Lehman et al.

34 Claims, 8 Drawing Sheets



One advantage of the present invention is that it allows narrowband switches be used interchangeably in a narrowband/broadband hybrid network. Any narrowband switch may be taken out of service without re-routing traffic and changing routing logic in each switch. The CCP is simply programmed not to select the given narrowband switch for call processing. The CCP will route calls over the broadband network to another narrowband switch. This flexibility also allows the telecommunications network to easily transfer narrowband switch loads.

An important advantage of this system is that both the advantages of broadband and narrowband systems are utilized. The transmission capabilities of a broadband network are coupled with the narrowband network's ability to apply features. For example, the CCP can use the broadband network to substantially make the call connection from origination to destination. The CCP diverts the traffic to the narrowband network for processing. The narrowband network can apply features, such as billing and routing. Once processed, the traffic is directed back to the broadband network for completion of the connection. The CCP can then use the routing information generated by the narrowband system to route the traffic through the broadband system to the destination. As a result, the telecommunications system does not have to develop a billing or "800" routing feature for its broadband network. This can be accomplished because the CCP allows both networks to work together intelligently.

Another advantage of the present invention is the elimination of a substantial percentage of the DS0 ports required on the existing narrowband switches. In the current architectures, narrowband switches are interconnected to each other. A substantial percentage of the switch ports are taken up by these connections. By eliminating the need for the switches to connect to each other, these ports can be eliminated. Each narrowband switch is only connected to the broadband system. This architecture requires fewer ports per switch. By load balancing with the CCP, the number of ports required on busy switches can be reduced. The architecture in the present invention does require additional broadband ports, but these can be added at a significant cost saving versus narrowband ports.

Additionally, the narrowband switches no longer signal each other since all signaling is directed to the CCP. This concentration accounts for a reduction in required signaling link ports. This reduction possibly could result in the elimination of STPs.

As mentioned above, an advantage of the present invention is its ability to treat narrowband switches, or groups of narrowband switches, interchangeably. The CCP can pick any narrowband switch to process a particular call. This allows the network to pull narrowband switches out of service without taking extreme measures. In turn, this simplifies the introduction of new services into the network. A switch can be pulled out of service simply by instructing the CCP to stop selecting it. The switch can be reprogrammed and put back into service. Then the next switch can then be updated in the same manner until all of the switches are implementing the new service. Switches can also be easily pulled to test developing applications.

This narrowband switch flexibility also allows the CCP to balance switch loads through the network during peak times, or during mass calling events. This eliminates the need to implement complex and expensive load balancing features in the narrowband network. Instead of programming the several switches to balance among themselves, one command to the CCP can achieve this.

Another advantage is the reduction in call set-up time. Most large networks require that a call pass through more than two narrowband switches arranged in a hierarchical fashion. One large network employs a flat architecture in which all narrowband switches are interconnected, but this still requires that the call pass through two narrowband switches. In the present invention, only one narrowband switch is required for each call. The use of broadband switches to set-up and complete the call represents significant time savings.

What is claimed is:

1. A method for handling a call having a first message and communications, the method comprising:

receiving and processing the first message in a processing system external to narrowband switches to select one of the narrowband switches;

generating a second message in the processing system based on the selected narrowband switch and transmitting the second message from the processing system; and

receiving the second message and the communications in an asynchronous communication system and transferring the communications to the selected narrowband switch in response to the second message.

2. The method of claim 1 further comprising:

generating a third message in the processing system based on the selected narrowband switch and transmitting the third message from the processing system;

receiving and processing the third message in the narrowband switch to select a route and generating and transmitting a fourth message indicating the selected route; and

receiving the communications in the selected narrowband switch and transmitting the communications from the selected narrowband switch based on the selected route.

3. The method of claim 2 further comprising:

receiving and processing the fourth message in the processing system to generate and transmit a fifth message; and

receiving the fifth message and the communications in the asynchronous communication system and transferring the communications based on the selected route in response to the fifth message.

4. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a destination point code from the first message.

5. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing an origination point code from the first message.

6. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a circuit identification code from the first message.

7. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing an area code from the first message.

8. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a called number from the first message.

9. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a time of day.

10. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a load of the narrowband switch.

11. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing network access to the narrowband switch.

23

12. The method of claim 1 wherein processing the first message to select the narrowband switch comprises processing a network maintenance condition.

13. The method of claim 1 wherein receiving and processing the first message comprises receiving and processing an initial address message.

14. The method of claim 1 wherein processing the first message to select the narrowband switch comprises accessing a service control point.

15. The method of claim 1 further comprising receiving and processing an answer message and a release message for the call in the processing system.

16. The method of claim 1 further comprising generating an initial address message for the call in the processing system and transferring the initial address from the processing system.

17. The method of claim 1 wherein the asynchronous communication system comprises an asynchronous transfer mode system.

18. A communications system for handling a call having a first message and communications, the communication system comprising:

a processing system external to narrowband switches and configured to receive and process the first message to select one of the narrowband switches and to generate and transmit a second message based on the selected narrowband switch; and

an asynchronous communication system configured to receive the second message and the communications and transfer the communications to the selected narrowband switch in response to the second message.

19. The communication system of claim 18 wherein:

the processing system is configured to generate and transmit a third message based on the selected narrowband switch and further comprising:

the selected narrowband switch configured to receive and process the third message to select a route, generate and transmit a fourth message indicating the selected route, and receive and transmit the communications based on the selected route.

20. The communication system of claim 19 wherein:

the processing system is configured to receive and process the fourth message to generate and transmit a fifth message; and

the asynchronous communication system is configured to receive the fifth message and the communications and

24

transfer the communications based on the selected route in response to the fifth message.

21. The communication system of claim 18 wherein the processing system is configured to process a destination point code from the first message to select the narrowband switch.

22. The communication system of claim 18 wherein the processing system is configured to process an origination point code from the first message to select the narrowband switch.

23. The communication system of claim 18 wherein the processing system is configured to process a circuit identification code from the first message to select the narrowband switch.

24. The communication system of claim 18 wherein the processing system is configured to process an area code from the first message to select the narrowband switch.

25. The communication system of claim 18 wherein the processing system is configured to process a called number from the first message to select the narrowband switch.

26. The communication system of claim 18 wherein the processing system is configured to process a time of day to select the narrowband switch.

27. The communication system of claim 18 wherein the processing system is configured to process a load of the narrowband switch to select the narrowband switch.

28. The communication system of claim 18 wherein the processing system is configured to process network access to the narrowband switch to select the narrowband switch.

29. The communication system of claim 18 wherein the processing system is configured to process a network maintenance condition to select the narrowband switch.

30. The communication system of claim 18 wherein the first message comprises an initial address message.

31. The communication system of claim 18 wherein the processing system is configured to access a service control point to process the first message.

32. The communication system of claim 18 wherein the processing system is configured to receive and process an answer message and a release message for the call.

33. The communication system of claim 18 wherein the processing system is configured to generate and transmit an initial address message for the call.

34. The communication system of claim 18 wherein the asynchronous communication system comprises an asynchronous transfer mode system.

* * * * *

(12) **United States Patent**
Christie

(10) **Patent No.:** **US 6,463,052 B1**
(45) **Date of Patent:** ***Oct. 8, 2002**

(54) **METHOD, SYSTEM AND APPARATUS FOR TELECOMMUNICATIONS CONTROL**

(75) Inventor: **Joseph Michael Christie**, San Bruno, CA (US)

(73) Assignee: **Sprint Communications Company L.P.**, Kansas City, MO (US)

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/082,182**

(22) Filed: **May 20, 1998**

Related U.S. Application Data

(63) Continuation of application No. 08/568,551, filed on Dec. 7, 1995, now Pat. No. 5,825,780, which is a continuation of application No. 08/238,605, filed on May 5, 1994, now abandoned.

(51) **Int. Cl.**⁷ **H04L 12/66**
(52) **U.S. Cl.** **370/352; 379/234**
(58) **Field of Search** 370/351-360, 370/384, 385, 377, 395, 396, 397, 398, 399, 400, 409, 410; 379/201, 207, 94, 220, 221, 112, 234

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,201,889 A 5/1980 Lawrence et al.

4,310,727 A 1/1982 Lawser
4,348,554 A 9/1982 Asmuth
4,453,247 A 6/1984 Suzuki et al.
4,554,659 A 11/1985 Blood et al.
4,565,903 A 1/1986 Riley

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

AU B-23853/92 3/1993
DE 4225203 A1 12/1992
EP 0403414 A2 12/1990

(List continued on next page.)

OTHER PUBLICATIONS

N/A, "Intelligent Network/2: A flexible framework for exchange services," Bell Communications Research Exchange, vol. 3 (No. 3), (May 23, 1987).

(List continued on next page.)

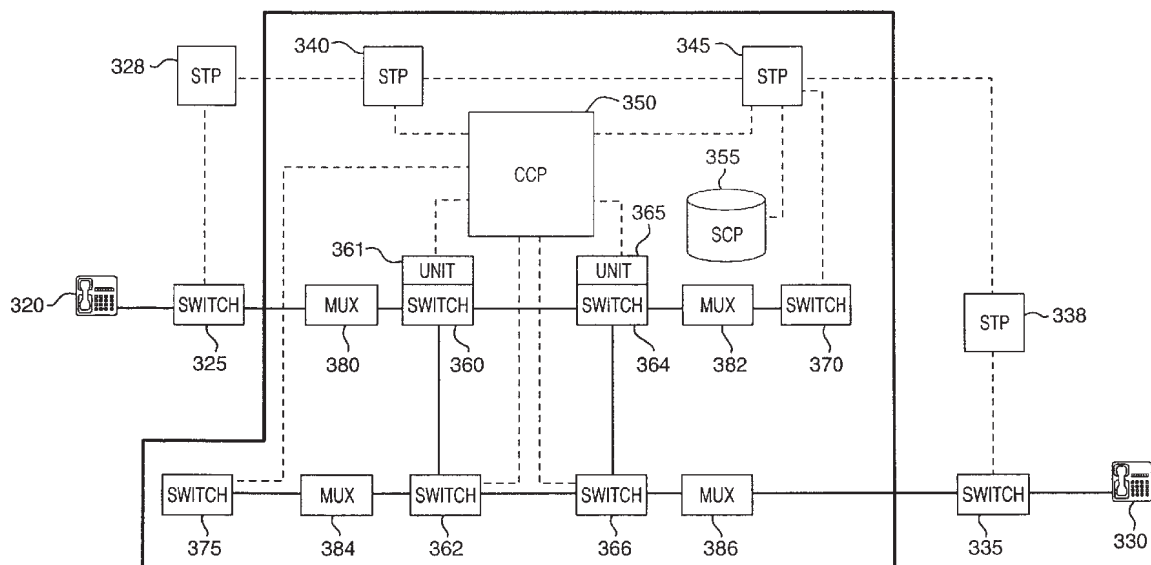
Primary Examiner—Ajit Patel

(74) *Attorney, Agent, or Firm*—Harley R. Ball; Steven J. Funk; Kevin D. Robb

(57) **ABSTRACT**

The present invention includes a method, system, and apparatus for providing communication control. The invention includes a method in which signaling is processed externally to a switch before it is applied by the network elements. The processor is able to select network characteristics and signal the network elements based the selections. A network employing the processing method is also included, as well as a signaling system that employs the processing method.

24 Claims, 8 Drawing Sheets



narrowband/broadband hybrid network. Any narrowband switch may be taken out of service without re-routing traffic and changing routing logic in each switch. The CCP is simply programmed not to select the given narrowband switch for call processing. The CCP will route calls over the broadband network to another narrowband switch. This flexibility also allows the telecommunications network to easily transfer narrowband switch loads.

An important advantage of this system is that both the advantages of broadband and narrowband systems are utilized. The transmission capabilities of a broadband network are coupled with the narrowband network's ability to apply features. For example, the CCP can use the broadband network to substantially make the call connection from origination to destination. The CCP diverts the traffic to the narrowband network for processing. The narrowband network can apply features, such as billing and routing. Once processed, the traffic is directed back to the broadband network for completion of the connection. The CCP can then use the routing information generated by the narrowband system to route the traffic through the broadband system to the destination. As a result, the telecommunications system does not have to develop a billing or "800" routing feature for its broadband network. This can be accomplished because the CCP allows both networks to work together intelligently.

Another advantage of the present invention is the elimination of a substantial percentage of the DS0 ports required on the existing narrowband switches. In the current architectures, narrowband switches are interconnected to each other. A substantial percentage of the switch ports are taken up by these connections. By eliminating the need for the switches to connect to each other, these ports can be eliminated. Each narrowband switch is only connected to the broadband system. This architecture requires fewer ports per switch. By load balancing with the CCP, the number of ports required on busy switches can be reduced. The architecture in the present invention does require additional broadband ports, but these can be added at a significant cost saving versus narrowband ports.

Additionally, the narrowband switches no longer signal each other since all signaling is directed to the CCP. This concentration accounts for a reduction in required signaling link ports. This reduction possibly could result in the elimination of STPs.

As mentioned above, an advantage of the present invention is its ability to treat narrowband switches, or groups of narrowband switches, interchangeably. The CCP can pick any narrowband switch to process a particular call. This allows the network to pull narrowband switches out of service without taking extreme measures. In turn, this simplifies the introduction of new services into the network. A switch can be pulled out of service simply by instructing the CCP to stop selecting it. The switch can be re-programmed and put back into service. Then the next switch can then be updated in the same manner until all of the switches are implementing the new service. Switches can also be easily pulled to test developing applications.

This narrowband switch flexibility also allows the CCP to balance switch loads through the network during peak times, or during mass calling events. This eliminates the need to implement complex and expensive load balancing features in the narrowband network. Instead of programming the several switches to balance among themselves, one command to the CCP can achieve this.

Another advantage is the reduction in call set-up time. Most large networks require that a call pass through more

than two narrowband switches arranged in a hierarchical fashion. One large network employs a flat architecture in which all narrowband switches are interconnected, but this still requires that the call pass through two narrowband switches. In the present invention, only one narrowband switch is required for each call. The use of broadband switches to set-up and complete the call represents significant time savings.

What is claimed is:

1. A method of transferring a user communication to a packet communication system, the method comprising:

receiving the user communication into a device;
receiving signaling formatted for a narrowband system into a processing system;

in the processing system, processing the signaling to select a network code that identifies a network element to provide egress for the user communication from the packet communication system;

transferring an instruction indicating the network code from the processing system to the device; and

transferring a packet including the network code and the user communication from the device to the packet communication system in response to the instruction.

2. The method of claim 1 wherein the user communication comprises a voice communication.

3. The method of claim 1 wherein receiving the user communication comprises receiving the user communication from a DS0 connection.

4. The method of claim 1 wherein receiving the user communication comprises receiving the user communication from a communication path and wherein the processing system is not on the communication path.

5. The method of claim 1 wherein processing the signaling comprises processing SS7 signaling.

6. The method of claim 1 wherein processing the signaling comprises processing C7 signaling.

7. The method of claim 1 wherein processing the signaling comprises processing in-band signaling.

8. The method of claim 1 wherein processing the signaling comprises processing an Initial Address Message.

9. The method of claim 1 wherein processing the signaling comprises processing a called number.

10. The method of claim 1 wherein processing the signaling comprises processing a caller number.

11. The method of claim 1 further comprising, in the device, converting the user communication from one communication format to another communication format.

12. A method of transferring a user communication from a packet communication system, the method comprising:

receiving a packet including information and the user communication from the packet communication system into a device;

transferring the information from the device to a processing system;

in the processing system, processing the information to select a communication path;

transferring an instruction indicating the communication path from the processing system to the device;

transferring the user communication from the device to the communication path in response to the instruction; and

transferring signaling from the processing system wherein the signaling indicates the communication path for the user communication and is formatted for a narrowband system.

**(12) United States Patent
Christie****(10) Patent No.: US 7,286,561 B2**
(45) Date of Patent: *Oct. 23, 2007**(54) METHOD SYSTEM AND APPARATUS FOR
TELECOMMUNICATIONS CONTROL****(75) Inventor: Joseph Michael Christie**, deceased,
late of San Bruno, CA (US)**(73) Assignee: Sprint Communications Company
L.P.**, Overland Park, KS (US)**(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 497 days.This patent is subject to a terminal dis-
claimer.

4,736,364 A	4/1988	Basso et al.
4,748,658 A	5/1988	Gopal et al.
4,757,526 A	7/1988	Foster et al.
4,763,317 A	8/1988	Lehman et al.
4,853,955 A	8/1989	Thorn et al.
4,970,721 A	11/1990	Aczel et al.
4,991,169 A	2/1991	Davis et al.
5,003,584 A	3/1991	Benyacar et al.
5,042,027 A	8/1991	Takase et al.

(Continued)

FOREIGN PATENT DOCUMENTS

(21) Appl. No.: 10/633,798

EP 0439098 7/1991

(22) Filed: Aug. 4, 2003**(65) Prior Publication Data**

US 2004/0037328 A1 Feb. 26, 2004

(Continued)

Related U.S. Application Data**(63)** Continuation of application No. 09/082,040, filed on
May 20, 1998, now Pat. No. 6,643,282, which is a
continuation of application No. 08/568,551, filed on
Dec. 7, 1995, now Pat. No. 5,825,780, which is a
continuation of application No. 08/238,605, filed on
May 5, 1994, now abandoned.

OTHER PUBLICATIONS

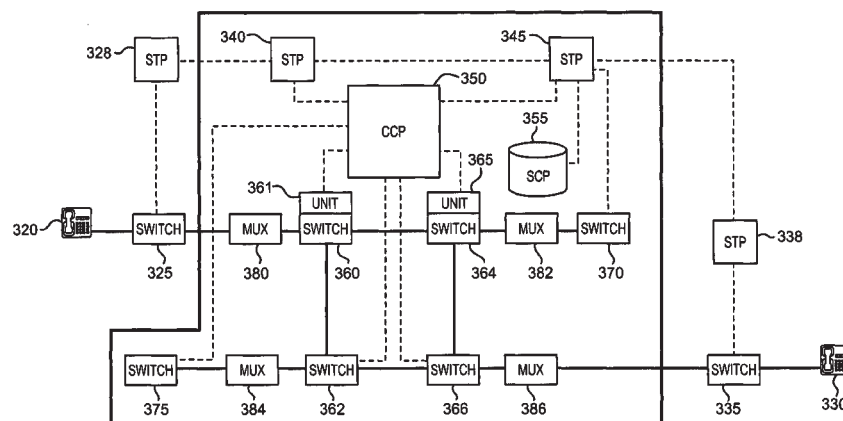
Kuribayashi, Shin-Ichi; Advanced Signaling Protocol for Broad-
band ISDN Services; Electronics and Communications in Japan;
Part 1, vol. 78, No. 1, pp. 1-12.

(Continued)

Primary Examiner—Ajit Patel

(51) Int. Cl.**H04J 3/16** (2006.01)**H04J 3/22** (2006.01)**(52) U.S. Cl. 370/466; 370/410****(58) Field of Classification Search 370/389,**
370/392, 401, 398, 399, 410-422, 426, 466
See application file for complete search history.**(57) ABSTRACT**The present invention includes a method, system, and appa-
ratus for providing communication control. The invention
includes a method in which signaling is processed externally
to a switch before it is applied by the network elements. The
processor is able to select network characteristics and signal
the network elements based the selections. A network
employing the processing method is also included, as well as
a signaling system that employs the processing method.**(56) References Cited**

U.S. PATENT DOCUMENTS

4,720,850 A 1/1988 Oberlander et al.
4,730,312 A 3/1988 Johnson et al.**20 Claims, 8 Drawing Sheets**

network to another narrowband switch. This flexibility also allows the telecommunications network to easily transfer narrowband switch loads.

An important advantage of this system is that both the advantages of broadband and narrowband systems are utilized. The transmission capabilities of a broadband network are coupled with the narrowband network's ability to apply features. For example, the CCP can use the broadband network to substantially make the call connection from origination to destination. The CCP diverts the traffic to the narrowband network for processing. The narrowband network can apply features, such as billing and routing. Once processed, the traffic is directed back to the broadband network for completion of the connection. The CCP can then use the routing information generated by the narrowband system to route the traffic through the broadband system to the destination. As a result, the telecommunications system does not have to develop a billing or "800" routing feature for its broadband network. This can be accomplished because the CCP allows both networks to work together intelligently.

Another advantage of the present invention is the elimination of a substantial percentage of the DS0 ports required on the existing narrowband switches. In the current, architectures, narrowband switches are interconnected to each other. A substantial percentage of the switch ports are taken up by these connections. By eliminating the need for the switches to connect to each other, these ports can be eliminated. Each narrowband switch is only connected to the broadband system. This architecture requires fewer ports per switch. By load balancing with the CCP, the number of ports required on busy switches can be reduced. The architecture in the present invention does require additional broadband ports, but these can be added at a significant cost saving versus narrowband ports.

Additionally, the narrowband switches no longer signal each other since all signaling is directed to the CCP. This concentration accounts for a reduction in required signaling link ports. This reduction possibly could result in the elimination of STPs.

As mentioned above, an advantage of the present invention is its ability to treat narrowband switches, or groups of narrowband switches, interchangeably. The CCP can pick any narrowband switch to process a particular call. This allows the network to pull narrowband switches out of service without taking extreme measures. In turn, this simplifies the introduction of new services into the network. A switch can be pulled out of service simply by instructing the CCP to stop selecting it. The switch can be re-programmed and put back into service. Then the next switch can then be updated in the same manner until all of the switches are implementing the new service. Switches can also be easily pulled to test developing applications.

This narrowband switch flexibility also allows the CCP to balance switch loads through the network during peak times, or during mass calling events. This eliminates the need to implement complex and expensive load balancing features in the narrowband network. Instead of programming the several switches to balance among themselves, one command to the CCP can achieve this.

Another advantage is the reduction in call set-up time. Most large networks require that a call pass through more than two narrowband switches arranged in a hierarchical fashion. One large network employs a flat architecture in which all narrowband switches are interconnected, but this still requires that the call pass through two narrowband switches. In the present invention, only one narrowband

switch is required for each call. The use of broadband switches to set-up and complete the call represents significant time savings.

What is claimed:

1. A communication network comprising:

a processing system configured to process one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select packet routing information for the call and to transfer a control message indicating packet routing information; and

a communication system configured to receive a user communication for the call and the control message, and in response, convert the user communication into a packet format including the packet routing information selected by the processing system and transfer the user communication in the packet format to a packet system that routes the user communication based on the packet routing information selected by the processing system.

2. The communication system of claim 1 wherein the packet routing information comprises an address.

3. The communication system of claim 1 wherein the packet routing information indicates a virtual connection.

4. The communication system of claim 1 wherein the packet routing information comprises a network code representing a network element to egress the call from the packet system.

5. The communication system of claim 1 wherein:

the processing system is configured to process another one of an SS7 signaling message and a Q.931 signaling message for the call to transfer another control message indicating call termination; and

the communication system is configured to receive the other control message and responsively terminate the call.

6. The communication system of claim 1 wherein the processing system is configured to access a Service Control Point (SCP) based on the signaling message to select the packet routing information.

7. The communication system of claim 1 wherein the processing system is configured to generate and transfer billing information for the call.

8. The communication system of claim 1 wherein the communication system is configured to receive the user communication for the call in a Time Division Multiplex (TDM) format.

9. The communication system of claim 1 wherein the communication system is configured to receive the user communication for the call in a DS0 format.

10. The communication system of claim 1 wherein the processing system is external to the communication system.

11. A method of operating a communication network, the method comprising:

in a processing system, processing one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select packet routing information for the call and transferring a control message indicating packet routing information; and

in a communication system, receiving a user communication for the call and the control message, and in response, converting the user communication into a packet format including the packet routing information selected by the processing system and transferring the user communication in the packet format to a packet system that routes the user communication based on the packet routing information selected by the processing system.

US 7,286,561 B2

23

12. The method of claim **11** wherein the packet routing information comprises an address.

13. The method of claim **11** wherein the packet routing information indicates a virtual connection.

14. The method of claim **11** wherein the packet routing information comprises a network code representing a network element to egress the call from the packet system.

15. The method of claim **11** further comprising:

in the processing system, processing another one of an SS7 signaling message and a Q.931 signaling message for the call and responsively transferring another control message indicating call termination; and

in the communication system, receiving the other control message and responsively terminating the call.

16. The method of claim **11** further comprising, in the processing system, accessing a Service Control Point (SCP) based on the signaling message to select the packet routing information.

24

17. The method of claim **11** further comprising, in the processing system, generating and transferring billing information for the call.

18. The method of claim **11** wherein receiving the user communication for the call comprises receiving the user communication in a Time Division Multiplex (TDM) format.

19. The method of claim **11** wherein receiving the user communication for the call comprises receiving the user communication in a DS0 format.

20. The method of claim **11** wherein the processing system is external to the communication system.

* * * * *

(12) **United States Patent**
Christie(10) **Patent No.:** **US 7,505,454 B2**
(45) **Date of Patent:** **Mar. 17, 2009**(54) **METHOD, SYSTEM AND APPARATUS FOR**
TELECOMMUNICATIONS CONTROL(75) Inventor: **Joseph Michael Christie**, San Bruno,
CA (US)(73) Assignee: **Sprint Communications Company**
L.P., Overland Park, KS (US)(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 179 days.

4,991,172 A	2/1991	Cidon et al.	
5,029,199 A	7/1991	Jones et al.	
5,084,816 A	1/1992	Boese et al.	
5,115,426 A	5/1992	Spanke	
5,274,698 A	12/1993	Jang	
5,297,147 A	3/1994	Shimokasa	
5,305,312 A *	4/1994	Fornek et al.	370/264
5,329,308 A *	7/1994	Binns et al.	348/14.01
5,339,318 A	8/1994	Tanaka et al.	

(21) Appl. No.: **11/560,999**

(Continued)

(22) Filed: **Nov. 17, 2006**

FOREIGN PATENT DOCUMENTS

(65) **Prior Publication Data**

AU 200043800 9/2000

US 2007/0076753 A1 Apr. 5, 2007

Related U.S. Application Data

(Continued)

(63) Continuation of application No. 10/633,798, filed on
Aug. 4, 2003, now Pat. No. 7,286,561, which is a
continuation of application No. 09/082,040, filed on
May 20, 1998, now Pat. No. 6,643,282, which is a
continuation of application No. 08/568,551, filed on
Dec. 7, 1995, now Pat. No. 5,825,780, which is a
continuation of application No. 08/238,605, filed on
May 5, 1994, now abandoned.

OTHER PUBLICATIONS

Manu Bahl, et al.; "The Evolving Intelligent Interexchange
Network—An SS7 Perspective;" Proceedings of the IEEE; Apr.
1992; pp. 637-643; vol. 80, No. 4.

(Continued)

Primary Examiner—Ajit Patel

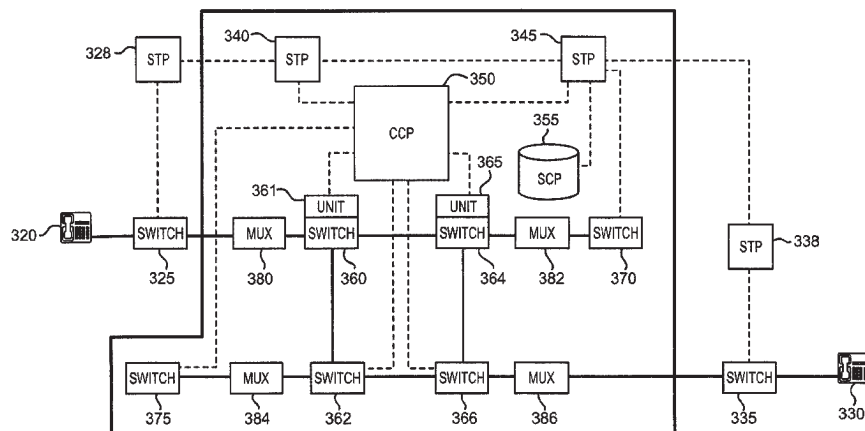
(51) **Int. Cl.****H04L 12/66** (2006.01)(52) **U.S. Cl.** **370/352**; 370/466(58) **Field of Classification Search** None
See application file for complete search history.(57) **ABSTRACT**

The present invention includes a method, system, and apparatus for providing communication control. The invention includes a method in which signaling is processed externally to a switch before it is applied by the network elements. The processor is able to select network characteristics and signal the network elements based the selections. A network employing the processing method is also included, as well as a signaling system that employs the processing method.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,491,945 A	1/1985	Turner
4,683,584 A	7/1987	Chang et al.
4,686,669 A	8/1987	Chang
4,686,701 A	8/1987	Ahmad et al.
4,799,153 A	1/1989	Hann et al.

14 Claims, 8 Drawing Sheets

tures, narrowband switches are interconnected to each other. A substantial percentage of the switch ports are taken up by these connections. By eliminating the need for the switches to connect to each other, these ports can be eliminated. Each narrowband switch is only connected to the broadband system. This architecture requires fewer ports per switch. By load balancing with the CCP, the number of ports required on busy switches can be reduced. The architecture in the present invention does require additional broadband ports, but these can be added at a significant cost saving versus narrowband ports.

Additionally, the narrowband switches no longer signal each other since all signaling is directed to the CCP. This concentration accounts for a reduction in required signaling link ports. This reduction possibly could result in the elimination of STPs.

As mentioned above, an advantage of the present invention is its ability to treat narrowband switches, or groups of narrowband switches, interchangeably. The CCP can pick any narrowband switch to process a particular call. This allows the network to pull narrowband switches out of service without taking extreme measures. In turn, this simplifies the introduction of new services into the network. A switch can be pulled out of service simply by instructing the CCP to stop selecting it. The switch can be re-programmed and put back into service. Then the next switch can then be updated in the same manner until all of the switches are implementing the new service. Switches can also be easily pulled to test developing applications.

This narrowband switch flexibility also allows the CCP to balance switch loads through the network during peak times, or during mass calling events. This eliminates the need to implement complex and expensive load balancing features in the narrowband network. Instead of programming the several switches to balance among themselves, one command to the CCP can achieve this.

Another advantage is the reduction in call set-up time. Most large networks require that a call pass through more than two narrowband switches arranged in a hierarchical fashion. One large network employs a flat architecture in which all narrowband switches are interconnected, but this still requires that the call pass through two narrowband switches. In the present invention, only one narrowband switch is required for each call. The use of broadband switches to set-up and complete the call represents significant time savings.

What is claimed:

1. A method of operating a telecommunication system, the method comprising:
receiving first signaling from customer premises equipment into a communication control processor;
processing the first signaling in the communication control processor to select an address of a network element;
transferring second signaling indicating the address from the communication control processor;
transferring third signaling from the communication control processor to a narrowband network;

receiving a voice communication from the customer premises equipment into a broadband network;
transferring the voice communication in the broadband network to the network element; and
transferring the voice communication from the network element to the narrowband network.

2. The method of claim 1 wherein the first signaling comprises broadband signaling.

3. The method of claim 1 wherein the second signaling comprises broadband signaling.

4. The method of claim 1 wherein the third signaling comprises Signaling System Seven (SS7) signaling.

5. The method of claim 1 wherein the third signaling comprises an Initial Address Message.

6. The method of claim 1 wherein transferring the voice communication in the broadband network to the network element comprises transferring the voice communication over connections, and further comprising in the broadband network, selecting the connections.

7. The method of claim 1 wherein the network element is connected to a local switch in the narrowband network and transferring the voice communication to the narrowband network comprises transferring the voice communication to the local switch.

8. A telecommunication system comprising:

a communication control processor configured to receive first signaling from customer premises equipment, process the first signaling to select an address of a network element, transfer second signaling indicating the address, and transfer third signaling to a narrowband network;

a broadband network configured to receive a voice communication from the customer premises equipment and transfer the voice communication to the network element; and

the network element is configured to receive the voice communication from the broadband network and transfer the voice communication to the narrowband network.

9. The telecommunication system of claim 8 wherein the first signaling comprises broadband signaling.

10. The telecommunication system of claim 8 wherein the second signaling comprises broadband signaling.

11. The telecommunication system of claim 8 wherein the third signaling comprises Signaling System Seven signaling.

12. The telecommunication system of claim 8 wherein the third signaling comprises an Initial Address Message.

13. The telecommunication system of claim 8 wherein the broadband network is configured to select connections and transfer the voice communication to the network element over the connections.

14. The telecommunication system of claim 8 wherein the network element is connected to a local switch in the narrowband network and is configured to transfer the voice communication to the local switch.

* * * * *

EXHIBIT 17

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

COMCAST CABLE COMMUNICATIONS
LLC, et al.,

Defendants.

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

CABLE ONE, INC.,

Defendant.

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

v.

TIME WARNER CABLE, INC., et al.,

Defendants.

CONSOLIDATED CASES

Case No. 11-2684-JWL

Case No. 11-2685-JWL

Case No. 11-2686-JWL

TABLE OF CONTENTS

I.	Background	1
II.	Claim Construction Standards	2
III.	Construction of Disputed Terms	6
A.	“Processing System”	6
B.	“Communication Path”	15
C.	“Route” and “Routing”	17
D.	“Network Element”	18
E.	“[Telecommunication] Signaling Message”	19
F.	“Control Message / Messaging”	21
G.	“Signaling Formatted for a Narrowband System”	26
H.	“User Communication”	27
I.	“Processing . . . to Select”	28
J.	“Interworking Unit”	31
K.	“Identifier”	35
L.	“Communication System”	37
M.	“Narrowband [Communication] System”	39
N.	“Packet [Communication] System”	40
O.	“Asynchronous Communication System”	41
P.	“Device”	42
Q.	“Routing System”	43
R.	“Service Node”	43

S.	“Service Platform System”	45
T.	“Control System”	45
U.	“Narrowband Switch”	48
V.	“Signaling Processor”	48
W.	“[A Processing System] External to Narrowband Switches”	49
X.	“Communication Switches” / “Telecommunication Switches”	51
Y.	“In Response to”	52
Z.	“Network Code . . . to Provide Egress”	52
AA.	“Transmitting” / “Receiving” / “Transferring”	56
BB.	“A Call Having a First Message and Communications”	58
CC.	“Converting the Asynchronous Communication into a User Communication”	59
DD.	“Generating a . . . Message”	60
EE.	“DS0 Connection”	62
FF.	“In the Processing System, Selecting a Service and a Service Node”	63
GG.	“Generating . . . a Second Message . . . Wherein the Second Message Indicates the Selected Service and a User”	65
HH.	“Identifiers That Are Used for Routing”	65
II.	“Identifier for Routing”	66
JJ.	“Another Control Message”	67
KK.	“Transferring the Asynchronous Communications . . . Monitoring the User Communications”	68
LL.	“Call Trigger”	71

MM.	“Trigger Message”	72
NN.	“Processing . . . to Transmit”	73
OO.	“Identifier for Routing”	73
PP.	“Interworking System”	74
QQ.	“Receiving a Response Message”	76
RR.	“Call Setup Message”	79
SS.	“Processing . . . to Transfer”	80
TT.	“Connection”	81
UU.	“Control System Data Tables” / “Call Processor Data Tables”	84
VV.	“Call Processor”	86
WW.	“Call Routing Data”	87
XX.	“Format”	87

MEMORANDUM AND ORDER

In these consolidated cases, plaintiff Sprint Communications Company, L.P. (“Sprint”) has brought patent infringement claims against various defendants. The parties have submitted their written arguments concerning the construction of various terms found in the relevant patents’ claims, and the Court construes those terms as set forth herein.¹

I. Background

Sprint, a telecommunications company, holds various patents relating to technology employing packet networks to carry telephone calls that initiate or terminate on the Public Switched Telephone Network (PSTN). Defendants provide Voice over Internet Protocol (VoIP) services to local cable companies. Sprint alleges that defendants’ VoIP technology infringes 12 of its patents, which the parties have addressed as divided into four groups. Group 1 includes United States Patent Nos. 6,452,932 (“the ’932 Patent”), 6,463,052 (“the ’052 Patent”), 6,633,561 (“the ’3,561 Patent”), and 7,286,561 (“the ’6,561 Patent”). Group 2 includes United States Patent Nos. 6,473,429 (“the ’429 Patent”), 6,343,084 (“the ’084 Patent”), and 6,298,064 (“the ’064 Patent”). Group 3 includes United States Patent Nos. 6,330,224 (“the ’224 Patent”)

¹Because the Court has determined that the issues may be resolved on the basis of the parties’ written submissions, the Court denies defendants’ request for oral argument.

and 6,697,340 (“the ’340 Patent”). Group 4 includes United States Patent Nos. 6,262,992 (“the ’992 Patent”), 6,563,918 (“the ’918 Patent”), and 6,639,912 (“the ’912 Patent”).

Many of these same patents were at issue in previous cases brought in this Court by Sprint against Vonage Holdings Corporation and Vonage America, Inc. (collectively “Vonage”) and against Big River Telephone Company (“Big River”). The Court construed various terms from the claims of the patents at issue in those cases (hereafter referred to as the *Vonage* case and the *Big River* case) in three written opinions. *See Sprint Comm. Co. L.P. v. Vonage Holdings Corp.*, 500 F. Supp. 2d 1290 (D. Kan. 2007); *Sprint Comm. Co. L.P. v. Vonage Holdings Corp.*, 518 F. Supp. 2d 1306 (D. Kan. 2007); *Sprint Comm. Co. L.P. v. Big River Tel. Co., LLC*, 2009 WL 1992537 (D. Kan. July 8, 2009). Those opinions contain additional information concerning the patents and technology at issue and their history. Moreover, in the *Vonage* and *Big River* opinions, the Court construed many patent terms that are also in dispute in the present case.

II. Claim Construction Standards

Claim construction is governed by the methodology set forth by the Federal Circuit Court of Appeals in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). It is a bedrock principle of patent law that the claims of the patent define the patentee’s invention. *Id.* at 1312. Thus, claim construction begins with the words of the claim itself. *Id.* The words of a claim should be given their ordinary and customary

meaning as understood by a person of ordinary skill in the art in question at the time of the invention. *Id.* at 1312-13. “[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Id.* at 1314. Both “the context in which a term is used in the asserted claim” and the “[o]ther claims of the patent in question” are useful for understanding the ordinary meaning. *Id.*

The claims do not stand alone, but are part of “a fully integrated written instrument.” *Id.* at 1315. Therefore, they “must be read in view of the specification, of which they are a part.” *Id.* (quotation omitted). In fact, the specification is “the single best guide to the meaning of a disputed term” and is often dispositive. *Id.* The specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess, in which case the inventor’s lexicography governs. *Id.* at 1316. In other cases, it may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor; in that case, “the inventor has dictated the correct claim scope, and the inventor’s invention, as expressed in the specification, is regarded as dispositive.” *Id.* The fact that the specification includes limited and specific embodiments is insufficient to define a term implicitly, and it is improper to confine the scope of the claims to the embodiments of the specification. *Id.* at 1323. “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* at 1316 (quotation omitted).

Moreover, the court must be careful not to import limitations from the

specification into the claim. *Id.* at 1323. In walking the “fine line” between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim, the court must “focus . . . on understanding how a person of ordinary skill in the art would understand the claim terms.” *Id.* The purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so. *Id.* Reading the specification in context should reveal whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive. *Id.* Thus, the court’s task is to determine “whether a person of skill in the art would understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature.” *Id.*

The court should also consult the patent’s prosecution history, if in evidence. *Id.* at 1317. Like the specification, the prosecution history “provides evidence of how the PTO [Patent and Trademark Office] and the inventor understood the patent.” *Id.* “Yet because the prosecution represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.*

Finally, the court may consult extrinsic evidence such as expert and inventor testimony, dictionaries, and learned treatises. *Id.* These have all been recognized as tools that can assist the court in determining the meaning of particular terminology. *Id.*

at 1318. Extrinsic evidence may be helpful to the court in understanding the technology or educating itself about the invention. *Id.* In particular, because technical dictionaries collect accepted meanings for terms in various scientific and technical fields, they can be useful in claim construction by providing the court with a better understanding of the underlying technology and the way in which one skilled in the art might use the claim terms. *Id.* at 1318. “However, conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Id.* Extrinsic evidence is less reliable than intrinsic evidence in determining the construction of claim terms, and therefore the court should discount any expert evidence that is at odds with the intrinsic evidence. *Id.*

With respect to a number of patent terms at issue here, defendants do not rely on any particular language from the patent claims to support their construction, but instead argue that the relevant specification “repeatedly and consistently” describes (and limits) the claimed invention in a particular way consistent with their urged construction. Defendants rely specifically on the Federal Circuit’s opinion in *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340 (Fed. Cir. 2004), in which the court relied for its construction on the fact that the specification “repeatedly and consistently” described the overall invention—and not merely a preferred embodiment—in a particular way. *See id.* at 1347-48; *see also Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1398 (Fed. Cir. 2008) (“repeated” use of the phrase “the present invention” described the invention as a whole; specification “consistently” described the invention in a particular way);

Praxair, Inc. v. ATMI, Inc., 543 F.3d 1306, 1324 (Fed. Cir. 2008) (reading claim in light of specification’s consistent emphasis on a fundamental feature of the invention); *Honeywell Int’l v. ITT Indus.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (description did not refer merely to a preferred embodiment, but shows that the scope of the relevant claim is limited); *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004) (“Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term.”).

III. Construction of Disputed Terms

A. “Processing System”

The parties dispute the construction of the term “processing system,” which may be found in claims 1 and 24 of the ’3,561 Patent, claim 1 of the ’052 Patent, claim 1 of the ’932 Patent, and claim 11 of the ’6,561 Patent (Group 1); claim 1 of the ’429 Patent and claim 1 of the ’064 Patent (Group 2); and claim 1 of the ’224 Patent (Group 3). Sprint contends that this term does not require further construction. Defendants contend that this term as used in the Group 1 patents is impermissibly indefinite. In the alternative, defendants propose a construction that would limit the claimed “processing system” to the communication control processor (“CCP”) disclosed in the patents’ specification. With respect to the Group 2 and Group 3 patents, defendants propose constructions that would limit the claimed “processing system” to the call connection

manager (“CCM”) disclosed in those patents’ specifications. In the *Vonage* and *Big River* cases, the Court rejected the defendants’ proposed limitations and declined to construe the term as used in the Group 1 and Group 2 patents at issue in those cases. *See Vonage*, 518 F. Supp. 2d at 1315-17; *Big River*, 2009 WL 1992537, at *16-17.

1. APPLICATION OF SECTION 112(f)

With respect to this term and a number of other disputed terms, defendants argue that the relevant patent claims should be construed to include “means-plus-function” limitations in accordance with 35 U.S.C. § 112(f). Section 112(f) provides as follows:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Id. Defendants concede that there is a presumption against applying Section 112(f) in this case because the claims do not use the phrase “means for,” but they argue that the presumption should be overcome here because the claims speak only in terms of function and do not include a definite structure. *See Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1213-14 (Fed. Cir. 1998). Defendants further argue that the corresponding structures from the patent specifications are the CCP and the CCM, and that those structures are impermissibly indefinite because they are described only as the equivalent of general purpose computers without disclosure of the necessary programming or algorithms. *See Aristocrat Tech. Australia Pty Ltd. v. International Game Tech.*, 521 F.3d 1328, 1337-38 (Fed. Cir. 2008). In the alternative, if the CCP and the CCM are

deemed to be sufficiently definite structures, defendants argue that “processing system” should be defined as the disclosed CCP or CCM pursuant to Section 112(f).

The Court rejects defendants’ arguments based on Section 112(f). Sprint notes, and defendants do not dispute, that the relevant patent claims at issue here are method claims, not apparatus claims. The Federal Circuit has made clear that Section 112(f) may also apply to method claims; but the court has distinguished the provision’s application to apparatus claims (“means” without recital of “structure” or “material”) from its application to method claims (“step[s]” without recital of “acts”). *See O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1582-83 (Fed. Cir. 1997) (citing 35 U.S.C. § 112, ¶ 6, which was later renamed as Section 112(f)). Thus, in the case of a method claim, Section 112(f) “is implicated only when steps *plus function* without acts are present.” *See id.* at 1583 (emphasis in original). Defendants have not offered any analysis under that standard or otherwise shown how the method claims here fail to recite any acts in support of the claimed steps.² Accordingly, defendants have not shown that the presumption against the application of Section 112(f) in this case should be deemed overcome, and the Court declines to apply that provision here with respect to any of the claims or terms at issue.

²Sprint raised this distinction in its rebuttal brief in response to the arguments based on Section 112(f) in defendants’ initial claim construction brief. In their subsequent supplemental briefs, however, defendants continued to make arguments under Section 112(f) without addressing this distinction between method claims and apparatus claims.

2. INDEFINITENESS

Pursuant to 35 U.S.C. § 112(b), patent claims must “distinctly” claim the subject matter of the invention. *See id.* Defendants argue that the term “processing system” and other disputed terms are impermissibly indefinite in violation of Section 112(b). Patents are “presumed valid,” and “[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. § 282. An invalidity defense must be proved by clear and convincing evidence. *See Microsoft Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238 (2011); *see also Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2130 n.10 (2014) (noting presumption of validity and citing the Court’s clear-and-convincing standard from *Microsoft* in the context of indefiniteness). Indefiniteness is to be evaluated from the perspective of one skilled in the relevant art at the time the patent was filed, and claims are to be read in light of the patent’s specification and prosecution history. *See Nautilus*, 134 S. Ct. at 2128.

In *Nautilus*, the Supreme Court recently rejected the Federal Circuit’s “insolubly ambiguous” standard for indefiniteness under Section 112(b). The Court discussed the competing concerns in setting the proper standard as follows:

Section 112, we have said, entails a delicate balance. On the one hand, the definiteness requirement must take into account the inherent limitations of language. Some modicum of uncertainty, the Court has recognized, is the price of ensuring the appropriate incentives for innovation. One must bear in mind, moreover, that patents are not addressed to lawyers, or even to the public generally, but rather to those skilled in the relevant art.

At the same time, a patent must be precise enough to afford clear

notice of what is claimed, thereby apprising the public of what is still open to them. Otherwise there would be a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims. And absent a meaningful definiteness check, we are told, patent applicants face powerful incentives to inject ambiguity into their claims. Eliminating that temptation is in order, and the patent drafter is in the best position to resolve the ambiguity in patent claims.

See id. at 2128-29 (footnotes and internal citations and quotations omitted). The Court announced the following standard to reconcile those concerns:

Cognizant of the competing concerns, we read [Section 112(b)] to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.

See id. at 2129.

Defendants argue that the term "processing system" is indefinite under the *Nautilus* standard of reasonable certainty. The parties agree that claim 1 from the '3,561 Patent is representative of the use of this term in the patents; that claim reads as follows:

1. A method of operating a processing system to control a packet communication system for a user communication, the method comprising:
 - receiving a signaling message for the user communication from a narrowband communication system into the processing system;
 - processing the signaling message to select a network code that identifies a network element to provide egress from the packet communication system for the user communication;
 - generating a control message indicating the network code;
 - transferring the control message from the processing system to the packet communication system;
 - receiving the user communication in the packet communication system and using the network code to route the user communication through the packet communication system to the network element; and

transferring the user communication from the network element to
provide egress from the packet communication system.

Essentially, defendants argue that “processing system” is indefinite because it merely defines that structure by reference to its functions—that is, by reference to what it *does* and not to what it *is*. Defendants note that the patent does not disclose the programming or algorithm for the processing system. Defendants have not cited to any authority (other than cases involving Section 112(f), which does not apply here), however, that would support the argument that such definition by functional limitation renders a claim indefinite.³

Defendants have also failed to show that any particular patent *claim* (as opposed to a term) is invalid as indefinite. In construing this same term in *Big River*, this Court concluded that “the context of the claims makes clear the different features and functions of the processing system that are actually claimed in the patents.” *See Big River*, 2009 WL 1992537, at *17. Similarly here, the claim is limited by the functions that must be performed by the processing system, and, again, defendants have not cited any authority to suggest that such a claim is inherently indefinite. Indeed, method claims are clearly permissible.

³Defendants cite the case of *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367 (Fed. Cir. 2008), but that case does not support defendants’ argument. In *Microprocessor*, the court distinguished a case involving an ambiguity about whether an apparatus or a method was claimed in the patent, and it found that a claim that was clearly a method claim was not indefinite. *See id.* at 1374-75. Similarly, in the present case defendants do not dispute that the claims at issue are method claims.

Nor have defendants shown that the term “processing system” would not have been understood by one skilled in the relevant art. Sprint’s expert has opined that the term would have been understood in the telecommunications context to mean a system that processes signaling to assist in call control, and he has cited various other patents that have used the term in this field. Defendants’ expert complains that he has not been told how to program the processing system, but he concedes that the phrase must refer to some kind of computer to perform the tasks described in the patent. He also notes that the system in the patents cited by Sprint’s expert had different limitations, but those differences do not undermine the basic idea that the term “processing system,” by itself, would refer to a system of processing signals in specified ways. Moreover, defendants’ expert has not explained how the particular patent *claims* containing this term are indefinite such that the scope of the claim could not be reasonably determined.

Finally, defendants also complain that the patents do not explain how one could have a device that performs all of the functions listed in the claims but that is *not* a processing system and thus does not infringe. Defendants have not cited any authority, however, requiring that the patent teach the public how *not* to infringe.⁴ *Nautilus* only requires that “a patent be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them.” *See Nautilus*, 134 S. Ct. at 2129 (citation and internal quotation omitted). “Processing system” has an ordinary

⁴Defendants have not raised an enablement objection in this context of claim construction.

meaning that may easily be understood, and the claims provide notice that such a system may infringe if it performs certain functions as set forth in those claims. Thus, the public has been given reasonable notice of what has been claimed—and therefore, of what has not been claimed.

For these reasons, the Court concludes that defendants have not met their burden to show, by clear and convincing evidence, that claims containing the term “processing system” are invalid as indefinite.

3. CONSTRUCTION UNDER *Microsoft*

With respect to the Group 1 patents, defendants propose construing “processing system” to mean a CCP, with an additional limiting definition of a CCP. Defendants do not contend that “processing system” is defined in the specification or elsewhere as a CCP; rather, defendants argue, pursuant to *Microsoft Corp. v. Multi-Tech Sys., Inc.*, that the specification repeatedly and consistently describes the invention as including a CCP.

The Court rejects this attempt by defendants to import such a limitation into the patent claims. In support of this argument, defendants cite a number of large excerpts from the specification that refer to and discuss the operation of a CCP. The specification is consistent, however, in discussing the CCP as an element of particular embodiments of the invention. Defendants have not pointed to any specific language in the specification indicating that the overall invention (and not merely an embodiment) involves the use of a CCP. Moreover, as Sprint notes, the specification does contain the following language:

The CCP is *a* processing system, and as such, those skilled in the art are aware that *such systems* can be housed in a single device or distributed among several devices. Additionally, multiple devices with overlapping capabilities might be desired for purposes of redundancy. *The present invention encompasses these variations.*

(’3,561 Patent, at 13:40-45 (emphasis added).) This language undermines any argument that the specification consistently refers to the entire invention as including a CCP and not other types of processing systems. Finally, neither the claims nor the specification defines “processing system” to be a CCP or contains similarly limiting language, and there is no express disavowal of claim scope. Accordingly, the Court rejects defendants’ proposed construction under *Microsoft*.⁵

Similarly, with respect to the Group 2 and Group 3 patents, defendants propose construing “processing system” pursuant to *Microsoft* to mean a CCM, with additional limiting definitions or descriptions of a CCM. For the same reasons, the Court rejects such a construction. The specifications for those patents consistently refer to the CCM in discussing particular embodiments. Defendants cite only a few excerpts from the specifications in support of their argument, and none of those excerpts contains language suggesting that the entire invention involves a CCM. Accordingly, the Court concludes that the specifications do not repeatedly and consistently refer to the inventions as

⁵Defendants also take issue with some of the reasoning by the Court in construing this term and addressing other proposed limitations in *Big River*. Defendants have not explained, however, how those particular objections support their position under *Microsoft* that the specification repeatedly and consistently describes the invention as including a CCP, and the Court therefore sees no need to defend its prior reasoning.

involving a CCM.

4. CONCLUSION

With respect to the term “processing system,” defendants have not shown that Section 112(f) applies or that the claims containing that term are impermissibly indefinite. Nor does the Court agree that limitations of that term are warranted under *Microsoft*. Defendants have not otherwise explained why the term “processing system” cannot be understood by jurors in accordance with its plain meaning. Therefore, as it did in *Vonage* and *Big River*, the Court declines to construe the term “processing system” as used in these patents.

B. “Communication Path”

The parties dispute the construction of the term “communication path” found in claim 4 of the ’052 Patent (Group 1). Sprint argues that no construction is necessary. Defendants argue that the term should be defined to mean *the combination of connections and network elements over which all user communication for a call is transferred*.

In support of their construction, defendants first quote the Group 1 specification’s statement that “[a] communications path is the combination of connections and network elements that physically transfers the information between points.” (’3,561 Patent at 5:16-18.) Defendants would then alter that statement essentially by changing “information” to “user communication” and by requiring *all* communications for a call

to be transferred along the particular path. The Court rejects both of those proposed limitations.

In support of the first change, defendants point to language in the specification indicating that user information travels over connections while signaling (another type of information) travels over links. Defendants have not cited any language, however, limiting the information that travels over a communications path to user communications. Nor have they demonstrated that the specification repeatedly and consistently describes the invention or “communication paths” in that manner. The Court concludes that there is no basis to impose this proposed limitation.

In support of the second change, defendants point to their general argument that, in these patents, communication paths are pre-established (prior to the transmission of data) on a call-by-call basis (such that a single path is used for any call). In *Big River*, the Court rejected this same argument and proposed limitation in construing a number of different terms. *See Big River*, 2009 WL 1992537, at *4-5, 8, 9, 16, 19. In arguing for this construction of “communication path,” defendants have not addressed that holding and rationale from *Big River*. Accordingly, the Court rejects this argument again for the same reasons expressed in *Big River*.

Finally, defendants have not explained why this term may not stand on its plain meaning. Both “communication” and “path” are readily understood by their plain meaning, and defendants have not shown that this term should have a different meaning when used in this patent claim. Accordingly, the Court declines to construe the term

“communication path.”

C. “Route” and “Routing”

The parties dispute the construction of the terms “route” and “routing”, which may be found in claims 1 and 24 of the ’3,561 Patent and claim 11 of the ’6,561 Patent (Group 1); claim 1 of the ’084 Patent and claim 2 of the ’429 Patent (Group 2); claim 11 of the ’340 Patent (Group 3); and claim 1 of the ’992 Patent and claim 1 of the ’912 Patent (Group 4). In both *Vonage* and *Big River*, the Court construed these terms to mean *direct/directing through a communication system by a selected route or in a specified direction*. See *Vonage*, 518 F. Supp. 2d at 1312; *Big River*, 2009 WL 1992537, at *19. Sprint would construe these terms in the same way in this case. Defendants would construe these terms to mean *direct/directing through a communication system along a communications path pre-selected on a call-by-call basis*.

Defendants again rely on their general argument that the inventions here require a pre-selected path on a call-by-call basis. That argument is based on their expert’s opinion that the inventions require the use of a CCP, CCM, or ATM system. The Court has rejected defendants’ attempt, however, to limit the inventions to the use of a CCP or a CCM. See *supra* Part III.A. Moreover, as noted above, see *supra* Part III.B, the Court has previously rejected this argument in construing various terms in *Big River*, and defendants have not attempted to show how the Court erred in its reasoning in that case. Accordingly, the Court again rejects defendants’ proposed limitation.

With respect to these specific terms, defendants argue that in *Vonage* and *Big River*, the Court relied solely on dictionary definitions, while its own proposed construction is rooted in the specification. The Court's rejection of this general argument in *Big River* concerning pre-selection and a call-by-call basis, however, was rooted in an analysis of the intrinsic evidence. *See Big River*, 2009 WL 1992537, at *4-5. Moreover, in construing these terms specifically in *Vonage*, the Court noted that the specification did not support a similar argument by Vonage that the term required actual delivery to the final destination. *See Vonage*, 518 F. Supp. 2d at 1312. The Court also noted in *Big River* that its construction was consistent with the intrinsic record. *See Big River*, 2009 WL 1992537, at *19. Finally, the Court rejects defendants' argument that the concept of "direction" is inapt in this context. The Court's construction includes the alternatives of a selected route or a specified direction, and such alternatives adequately convey that the "routing" must be directed and not done aimlessly. *See id.* at *18.

Accordingly, as it did in *Vonage* and *Big River*, the Court construes "route" and "routing" to mean *direct/directing through a communication system by a selected route or in a specified direction*.

D. "Network Element"

The parties dispute the construction of the term "network element," found in claims 1 and 24 of the '3,561 Patent, claim 1 of the '052 Patent, and claim 14 of the '6,561 Patent (Group 1). Sprint contends that no further construction is necessary.

Defendants propose to construe the term to mean *a telecommunications device which, in operation, forms a part of a communications path*.

In support of their construction, defendants point to the specification's statement that a communications path is typically comprised of a series of connections between network elements. ('3,561 Patent, at 1:32-34.) As defendants concede, however, there may be network elements that are not part of a communications path. Thus, defining "network element" as something found in a communications path would not be accurate in the context of this specification. Defendants nonetheless argue for such a definition because, in the context of these particular patent claims, the "network element" referenced in the claims provides egress for the communication from the system. As Sprint, points out, however, the claims themselves provide that limitation. Thus, there is no need to construe this term to include such a limitation, especially at the cost of a technically-inaccurate definition.

Defendants have not provided an alternative construction, and the Court agrees with Sprint that this term is easily understood by its plain meaning of an element within a network. Accordingly, the Court declines to construe the term "network element."

E. "[Telecommunication] Signaling Message"

The parties dispute the construction of the terms "signaling message," found in claims 1 and 24 of the '3,561 Patent and claim 11 of the '6,561 Patent (Group 1); and "telecommunication signaling message," found in claim 2 of the '224 Patent (Group 3).

In *Vonage* and *Big River*, the Court construed “signaling message” in various patent claims to mean *a message used to set up or tear down a call*. See *Vonage*, 518 F. Supp. 2d at 1318; *Big River*, 2009 WL 1992537, at *8 (construing term as used in the ’3,561 Patent). Sprint proposes that the Court adopt the same construction for these terms in this case. Defendants propose to construe the terms to mean *a message that is used to establish a communications path on a call by call basis*.

For the same reasons set forth above, the Court again rejects defendants’ attempt to limit the invention and the claims to a single path set up on a call-by-call basis. See *supra* Part III.B. Defendants point to the specification’s statement that “[s]ignaling is the transfer of information among points and network elements and is used to establish communication paths.” (’3,561 Patent, at 5:23-25.) As noted in *Big River*, however, that definition does not limit signaling to a single path for each call. See *Big River*, 2009 WL 1992537, at *4-5. As noted in the Court’s previous opinions, its prior construction is supported by the patents’ specifications, and defendants have not explained why that definition is inaccurate for purposes of these claims. The Court also rejects defendants’ suggestion that “signaling message” is indefinite under the Court’s prior construction, as that construction adequately allows for the scope of the claims to be determined.⁶

Defendants have submitted the same proposed construction for “telecommunication signaling message” as used in the ’224 Patent, and for the same

⁶In their supplemental briefs addressed specifically to the issue of indefiniteness, defendants did not discuss the term “signaling message” as used in the Group 1 patents.

reasons, the Court rejects that construction and instead adopts the same construction as for “signaling message” in the Group 1 patents. In the alternative, defendants argue that this term is indefinite, based primarily on the fact that this term is not used in the ’224 Patent’s specification. Again, however, defendants have failed to explain how the Court’s prior definition of “signaling message” is deficient or how the addition of the word “telecommunication” (the field at issue) alters the meaning of the term. The Court’s construction gives sufficient definition to the term to allow the claim’s scope to be determined. This patent’s specification is consistent with the idea that signaling messages would be those messages used in setting up or tearing down calls, and defendants have not proffered any other construction supported by the intrinsic evidence. Finally, for the reasons set forth in the next section, *see infra* Part III.F, the Court rejects defendants’ argument that “telecommunication signaling message” is indefinite because it cannot be distinguished from “control message” in this patent.

Accordingly, the Court construes these terms to mean *a message used to set up or tear down a call*.

F. “Control Message / Messaging”

The parties dispute the construction of the terms “control message” and “control messaging” found in claims 1 and 24 of the ’3,561 Patent and claim 11 of the ’6,561 Patent (Group 1); claim 11 of the ’340 Patent (Group 3); and claim 11 of the ’918 Patent, claim 1 of the ’992 Patent, and claim 1 of the ’912 Patent (Group 4). Sprint contends

that no further construction is necessary, while defendants argue that the term is indefinite or propose various constructions, depending on the patents.

1. GROUP 1 PATENTS

Defendants argue that the term “control message” as used in the Group 1 patents is impermissibly indefinite. In the alternative, defendants propose to construe the term to mean *a message that is used to establish a communications path on a call-by-call basis*. As a preliminary matter, the Court rejects the alternative construction for the same reasons stated above for the rejection of such a limitation. *See supra* Part III.B.

In arguing that this term is indefinite, defendants note that the term “control message” is not used in the specification for these patents, and they argue, based on their expert’s declaration, that the term has no standard meaning in this field. The term certainly has an easily understood plain meaning, however—a message involved in the control of a call. Moreover, defendants’ expert stated that the term’s meaning depends on its context, and the Court agrees with Sprint that the requirements of the claims themselves provide sufficient context to inform those skilled in the art about the scope of the claims with reasonable certainty. For instance, the method in claim 1 of the ’3,561 Patent includes the steps of generating a control message that indicates a selected network code that identifies a network element to provide egress from the packet communications system; and transferring the control message from one particular system to another. Claim 24 of that patent includes similar steps of generating and transferring a control message. Claim 11 of the ’6,561 Patent refers to the transfer and receipt of a

control message. The Court concludes that these claims are not indefinite, and that the term “control message” as used in the Group 1 patents need not be construed further.

2. '918 AND '340 PATENTS

Defendants argue that the term “control message” in claim 11 of the '918 Patent and the term “control messaging” in claim 11 of the '340 Patent are indefinite. Defendants rely on the following statement contained in these patents' specifications: “The term ‘control message’ as used herein means a control or signaling message, a control or signaling instruction, or a control or signaling signal, whether proprietary or standardized, that conveys information from one point to another.” ('340 Patent, at 6:63-67; '918 Patent, at 3:67-4:5.) Defendants argue that, based on that apparent definition, “control message” and “signaling message” appear to be synonymous, but that because both “control” messaging and the concept of signaling are found in the patent claims, they must mean different things—which different meanings are unclear. *See, e.g., CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of . . . different terms in the claims connotes different meanings.”).

The Court rejects this argument by defendants. The claims may refer to particular types of “signaling” or “signaling information,” but they do not use the term “signaling message,” and thus the Court’s construction of that term is not applicable to these patent claims. Moreover, the most reasonable reading of the statement in the specifications is that “control message” is a broader term than signaling message. Defendants have not

explained why the plain meaning of “control message” and “control messaging”—a message involved in control of the call—is not sufficiently definite to make the scope of the claims reasonably certain. Nor have defendants provided an alternative construction. As in the case of the Group 1 patents, the language of the particular claims, with their explicit limitations, provides the necessary context.

Accordingly, the Court declines to construe these terms as used in these two patents.

3. '992 PATENT

With respect to claim 1 of the '992 Patent, defendants propose to construe the term “control message” to mean the following: *A message sent by the signaling processor which includes an identifier of a connection to be used for the call. A “connection” is the “transmission media to be used for the call.”* Defendants argue that, in order to avoid indefiniteness, the term as used in this patent must be construed to mean the “processor control message” disclosed in the specification, and they purport to provide limitations based on language in the specification.

For the reasons already stated, the Court does not agree that this claim is indefinite if the term “control message” is given its ordinary meaning, as elucidated by the particular requirements of the claim. Defendants cite to language in the specification referring to control messages that designate connections. As Sprint points out, however, the specification also contains language indicating that the signaling processor may *receive* a control message ('992 Patent, at 2:17-20), which undermines defendants'

definition requiring that the control message be *sent by* the processor. Defendants' citations generally refer to particular embodiments of the invention, and the Court cannot conclude that the specification repeatedly and consistently defines "control message" or the invention generally in a manner consistent with defendants' proposed construction. Finally, the language of the claim indicates that the control message must indicate the selected identifier for routing the call; thus, defining "control message" to require an identifier is unnecessary.

Accordingly, the Court declines to construe this term as used in this patent.

4. '912 PATENT

Defendants propose to construe "control message" in claim 1 of the '912 Patent to mean *a message which identifies an assignment between a DS0 and an ATM VPI/VCI*. Defendants cite to two places in the specification to support their proposed limitation, but those descriptions are clearly referring to particular embodiments of the invention. *See, e.g., '912 Patent*, at 5:22-25 ("These control messages are *typically* provided . . .") (emphasis added). Defendants have not explained why this term as used in this patent claim should be limited to an application using ATM technology, and the Court cannot conclude that the specification repeatedly and consistently defines "control message" in this way. Again, the Court concludes that this term may be understood by its ordinary meaning within the context and requirements of the particular patent claim, and it therefore declines to construe the term.

G. “Signaling Formatted for a Narrowband System”

The parties dispute the construction of the term “signaling formatted for a narrowband system,” which is found in claim 1 of the ’052 Patent (Group 1). Sprint argues that the term should not be construed further. Defendants propose that the term be construed to mean *signaling message in a format that can be processed by a narrowband system*.

Defendants essentially seek to make two changes to this phrase. First, defendants would change “signaling” to “signaling message.” Defendants argue that this change is intended to avoid jury confusion because “signaling message” appears in other claims. Defendants have not provided any support for equating “signaling” with “signaling message” in this context, however. Therefore, the Court rejects this proposed addition.

Second, defendants would define “formatted for a narrowband system” to mean “in a format that can be processed by a narrowband system.” As Sprint points out, however, the claim makes clear that the signaling is processed by a processing system, not by a narrowband system. Therefore, the Court rejects this construction by defendants as inconsistent with the language of the claim. Defendants have not cited any intrinsic or other evidence in support of their construction.

Defendants suggest that this phrase would be indefinite if their construction is not used, but they have not explained how the claim scope would not be understood. Neither side has addressed what it means for something to be “formatted for” a narrowband system. Indeed, defendants’ own construction uses the term “format”. In the absence

of any argument addressing that question, the Court declines to construe this phrase at this time.

H. “User Communication”

The parties dispute the construction of the term “user communication,” which may be found in almost all of the patents at issue in this suit. Sprint contends that no further construction is necessary. Defendants would construe the term to mean the following: *The voice or data information sent between the caller and the person that was called. “User communication” does not include signaling or control information.*

First, the Court agrees with Sprint that the reference to a “caller” and a “person . . . called” in defendants’ construction is unnecessarily confusing, as such terms might suggest to a jury that user communications include only voice calls and not data transmissions. Defendants have not explained why the term “user” is unclear or in need of further construction. Therefore, the Court rejects that part of defendants’ proposed construction.

Second, the Court rejects defendants’ proposed limitation that “user communication” cannot include signaling or control information. Although defendants cite various statements in the patents’ specifications in which signaling or control information is distinguished from user communications or information, defendants have not cited any support for the argument that those concepts are mutually exclusive, that is, that user communications can never include signaling information. In fact, as Sprint

points out and as defendants do not dispute, user communications may include, for example, trigger messages that involve signaling and control. Defendants argue that although such messages may be “embedded” in user communications, they are still separate from the communications themselves. Such a distinction would only add confusion for the jury, however. Defendants also argue that most claims in these patents refer both to user communications and to signaling, which must therefore have different meanings. The fact that their meanings differ, however, does not necessarily mean that the scope of the terms cannot intersect. Accordingly, the Court rejects this limitation proposed by defendants.

Sprint does not appear to take issue specifically with defendants’ reference to “voice or data information.” Defendants have not explained, however, why “communication” in this context requires further construction. The Court concludes that “user communication” is easily understood by its plain and ordinary meaning, in the context of the language and limitations of the particular patent claims. Accordingly, the Court declines to construe this term.

I. “Processing . . . to Select”

The parties dispute the construction of the term “processing . . . to select,” found in claim 1 of the ’3,561 Patent, claim 1 of the ’052 Patent, claim 1 of the ’932 Patent, and claim 11 of the ’6,561 Patent (Group 1); claim 1 of the ’429 Patent and claim 1 of the ’064 Patent (Group 2); and claim 1 of the ’992 Patent and claim 1 of the ’912 Patent

(Group 4). Sprint proposes construing this term to mean *processing to participate in the selecting*. Defendants propose the following construction for the term: *Processing . . . and making the selection. The selection can be made using information from other sources*.

The Court first considered this term in *Vonage*. At the summary judgment stage, the Court rejected Vonage’s argument that the processing system must not only process but must also select a network code; the Court held that the claim did not require that the system actually select the code, and it further held that a question of fact remained because a jury could conclude that the system processed signaling to select the code if it was involved in the selection. *See Vonage*, 500 F. Supp. 2d at 1322-23. Then, at the claim construction stage, Vonage proposed a construction requiring the processing element also to make the selection, while Sprint proposed construing the term to mean “processing to participate in the selection.” *See Vonage*, 518 F. Supp. 2d at 1320. Because neither party supported its argument with citation to intrinsic evidence, the Court rejected both parties’ arguments and declined to construe the term. *See id.* at 1321. The Court addressed this term again in *Big River*, in which the parties proposed the same constructions rejected in *Vonage*. *See Big River*, 2009 WL 1992537, at *17-18. The Court rejected the construction offered by Big River, as that party had again failed to support its construction sufficiently. *See id.* at *18. The Court then noted that the particular specification at issue did make clear that information from other elements may be used in selection, and it reaffirmed its conclusion from *Vonage* that the claim

language did not require that the processing system actually select the element. *See id.* The Court further concluded that “the scope of the claims might be ambiguous on this issue, to the extent that someone might believe that the selection must be made without help from any other network element.” *See id.* For that reason, the Court adopted Sprint’s construction and construed the term “process[ing] . . . to select” to mean *process[ing] . . . to participate in the selecting.* *See id.*

Like Vonage and Big River before them, defendants argue that the element that does the processing (such as the processing system) must also do the selecting. Defendants argue that, although information from other sources may be considered, the processing element actually makes the decision about the selection. Defendants cite to a couple of examples from one specification in support of their argument, but those examples relate to particular embodiments, and defendants have not shown that the inventions are repeatedly and consistently described as having the processing element actually make the selection. Defendants also analogize the situation to one in which the President makes decisions with input from advisors, but that analogy is not necessarily apt—these inventions might act more like a committee than a President with advisors, and the specifications do definitively choose one model over the other. Moreover, a human scenario seems to be a questionable model for understanding how decisions are made mechanically or electronically, and neither party has pointed to evidence concerning how decisions are physically made within this technology. At any rate, the claims themselves do not require that the processing element also make the selection, but

instead require only “processing . . . to select,” and in the absence of sufficient evidence from the specifications, the Court will honor that distinction.

Accordingly, the Court will follow its construction from *Vonage* and *Big River*, and it construes “processing . . . to select” in these patents to mean *processing . . . to participate in the selecting*.

J. “Interworking Unit”

The parties dispute the construction of the term “interworking unit,” which is found in claim 1 of the ’084 Patent, claim 1 of the ’429 Patent, and claim 1 of the ’064 Patent (Group 2); claim 1 of the ’224 Patent (Group 3); and claim 1 of the ’992 Patent and claim 11 of the ’918 Patent (Group 4). Defendants argue that the Court should reaffirm its construction from *Vonage* and *Big River*, in which the Court interpreted this term as used in the family of Group 2 patents to mean *ATM interworking multiplexer*. See *Vonage*, 500 F. Supp. 2d at 1314-18; *Big River*, 2009 WL 1992537, at *11-13. Sprint proposes to construe the term to mean *a device that translates between narrowband and packet formats*.

This dispute boils down to whether the claimed interworking unit should be limited to ATM (Asynchronous Transfer Mode) technology. In *Vonage* and *Big River*, the Court agreed with those defendants that “interworking device” and “interworking unit” should be so limited because the Group 2 specification repeatedly and consistently describes the invention (and not merely particular embodiments) as involving an ATM

interworking multiplexer. *See Vonage*, 500 F. Supp. 2d at 1314-18; *Big River*, 2009 WL 1992537, at *11-13. Sprint argues that the Court should reconsider that decision.

First, Sprint argues that a different result is warranted by consideration of the Federal Circuit’s opinion in *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362 (Fed. Cir. 2012). In particular, Sprint relies on the following standard set forth by the court in *Thorner*:

The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996).

Thorner, 669 F.3d at 1365. Sprint argues that in the Group 2 specification the patentee neither defined this term as limited to an ATM multiplexer nor disavowed a broader claim scope. In essence, Sprint argues that application of the “repeatedly and consistently” standard from *Microsoft* is no longer proper after *Thorner*.

The Court does not agree that *Thorner* impliedly abrogated or otherwise cast doubt upon the *Microsoft* standard. The case on which *Thorner* relied in setting forth its two exceptions, *Vitronics*, preceded *Microsoft*. Moreover, in *Thorner*, the Federal Circuit did not state or suggest that it was altering or abandoning any of its previously-stated claim construction principles or standards; nor has Sprint pointed to any case after *Microsoft* casting doubt on the validity of the standard applied therein. In fact, in

discussing the first exception, the court in *Thorner* cited its opinion in *C.R. Bard*, which this Court cited in *Big River* as supporting the *Microsoft* standard. *See Thorner*, 669 F.3d at 1365-66 (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)); *see also C.R. Bard*, 388 F.3d at 864 (“Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term.”); *Big River*, 2009 WL 1992537, at *3 (citing *C.R. Bard*). In discussing the second exception, the *Thorner* court cited as an example of a disavowal of claim scope a case in which the specification “repeatedly described” the invention in a certain way. *See Thorner*, 669 F.3d at 1366 (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1342 (Fed. Cir. 2001)). Finally, only last year, the Federal Circuit, while applying standards from *Thorner*, concluded that a patentee had, “without express redefinition, disclaimed a potential embodiment from the ordinary scope of a claim term through clear, repeated, and consistent statements in the specification.” *See SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1203 (Fed. Cir. 2013). There is little doubt, then, that Federal Circuit law still allows for the scope of a claim to be limited by the specification’s clear, repeated, and consistent description of the invention in a certain way.

As set forth in *Vonage* and as reaffirmed in *Big River* after another review, the Group 2 specification, and in particular its summary of the invention, describes the invention as limited to the use of an ATM interworking multiplexer. Sprint repeats its prior arguments based on claim differentiation and the use of the term “mux” in the

specification, but the Court rejects those argument for the same reasons set forth in *Big River*. See *Big River*, 2009 WL 1992537, at *12-13. Sprint also argues that the Group 2 specification incorporates the Group 1 patent specification, in which the interworking unit is described more broadly. The Group 2 patents involve a different invention than that described in the Group 1 patents, however, and that incorporation by reference does not alter the fact that the Group 2 specification makes clear that the invention includes the use of an ATM multiplexer. Finally, Sprint argues that words from the specification such as “includes” and “comprises”, which the Court cited in its previous opinions, are permissive and thus do not connote that the interworking unit can *only* be an ATM multiplexer. As defendants point out, however, those words do indicate that an ATM multiplexer must be involved, whatever other elements are also used. The specification did *not* state that the invention *could* or *may* include an ATM interplexer. Thus, the Court is not persuaded that its prior analysis was faulty. For these reasons, the Court again construes this term in the Group 2 patents to mean *ATM interworking multiplexer*.

The Court then turns to the Group 3 and Group 4 patents in which this term is found. The Court concludes that the specifications for the '224 Patent, the '992 Patent, and the '918 Patent do clearly, repeatedly, and consistently describe their inventions as involving the use of the ATM format, particularly in the specifications' abstracts and summaries. For instance, in the '224 Patent specification, the abstract begins as follows: “A system and method provide enhanced services for a call that is transported from a communication device through an asynchronous transfer mode system.” ('224 Patent,

at Abstract.) The same specification’s summary describes the invention as involving ATM technology in multiple places, and begins as follows: “The present invention comprises a system for providing services for a call from a first communication device in an asynchronous transfer mode format.” (’224 Patent, at 1:26-28.) The summary in the ’992 Patent’s specification begins as follows: “The present invention is directed to a telecommunication system for transporting a call through an asynchronous transfer mode system.” (’992 Patent, at 1:58-60.) In the specification for the ’918 Patent, the statement of the Field of Invention refers to the field of “telecommunications call switching and transport in a system that provides asynchronous transfer mode connections.” (’918 Patent, at 1:18-21.) Sprint cites to a couple of instances in the descriptions of embodiments in the ’224 Patent and the ’992 Patent that contain references to other types of formats; the Court agrees with defendants, however, that it is not clear in those references whether the patentee intended that the invention could include entirely non-ATM elements. Those references do not alter the Court’s conclusion that one skilled in the relevant art would read these patents’ specifications to mean that the inventions themselves (and not merely embodiments thereof) include the use of ATM technology. Accordingly, the Court also construes the term “interworking unit” as used in these three patents to mean *ATM interworking multiplexer*.

K. “Identifier”

The parties dispute the construction of the term “identifier” in claim 1 of the ’084 Patent and claim 1 of the ’429 Patent (Group 2). In *Vonage* and *Big River*, the Court construed this term in a Group 2 patent to mean *data for routing information in a packet network*. See *Vonage*, 500 F. Supp. 2d at 1312-14; *Big River*, 2009 WL 1992537, at *13-14. Sprint proposes the same construction here, with the addition of the word “user” before “information”. Defendants propose to construe the term to mean *identifier of an ATM virtual connection*.

In *Vonage*, the Court rejected the defendant’s proposed limitation of this term to a VPI/VCI combination on the basis that the specification’s references to such combinations were exemplary only. See *Vonage*, 500 F. Supp. 2d at 1312-14. In *Big River*, the Court rejected the defendant’s attempt to limit this term to pre-provisioned virtual connections. See *Big River*, 2009 WL 1992537, at *13-14. The Court also rejected the defendant’s attempt to limit the term to the use of virtual connections generally, reasoning as follows:

With respect to [this] concept, Sprint does not dispute that virtual connections are used, a point confirmed by the summary of the specification. Big River has not explained, however, why the use of virtual connections in general should be included in this construction of “identifier”. The use of virtual connections as a feature of ATM technology can be easily explained to the jury at trial. Therefore, the Court declines to incorporate that feature into the construction of this term.

See *id.* at *14.

The Court does not see a reason to alter its conclusion in *Big River* concerning the need for the construction of “identifier” to include a reference to virtual connections.

Based on the Court’s construction of “interworking unit,” these claims are limited to the use of ATM technology, and there is no basis to repeat that limitation by grafting it onto this particular term—as defendants point out, the term “identifier” is generally absent from the specification. Accordingly, the Court rejects defendants’ proposed construction.

Defendants argue that the Court’s prior construction is without basis, but as the Court explained in *Vonage*, its construction was based on the claim language itself and represents a fair and accurate construction. *See Vonage*, 500 F. Supp. 2d at 1314. Defendants have not explained why that construction is inaccurate. Moreover, Sprint has not explained why its proposed addition to the Court’s prior construction is appropriate or necessary. Accordingly, the Court again construes this term to mean *data for routing information in a packet network*.

L. “Communication System”

The parties dispute the construction of the term “communication system,” which is found in claim 11 of the ’6,561 Patent (Group 1); claim 1 of the ’224 Patent and claim 11 of the ’340 Patent (Group 3); and claim 1 of the ’992 Patent, claim 11 of the ’918 Patent, and claim 1 of the ’912 Patent (Group 4). Sprint proposes to construe the term in each case to mean *a plurality of network elements and connections forming a network to transfer information*. Defendants argue that the term is indefinite as used in the ’6,561 Patent, and they offer various constructions for the other patents that would limit the

term to ATM technology. In *Vonage* and *Big River*, the Court adopted the construction urged by Sprint here, but in those cases, the defendants agreed to that portion of the construction, and thus the Court did not offer any analysis to support that construction (other than in rejecting defendants' additional limitations). *See Vonage*, 518 F. Supp. 2d at 1315; *Big River*, 2009 WL 1992537, at *4-6.

With respect to the '6,561 Patent, defendants argue that this term is indefinite under Section 112(f) because there is no corresponding structure to perform the functions set forth in the claim. For the same reasons set forth above, *see supra* Part III.A.1, defendants have not shown that that section applies to these method claims, and the Court therefore rejects defendants' arguments under that section.

Defendants also suggest that this term is otherwise indefinite under Section 112(b). The Court rejects that argument as well, for the reasons stated above with respect to the term "processing system." *See supra* Part III.A.2. Defendants concede that this term has an ordinary meaning, and they have failed to explain why this *claim* does not have a reasonably certain scope in light of that ordinary meaning as limited by the requirements of the claim. Nor have defendants cited any authority outside the context of Section 112(f) that indicates that a term (as opposed to a claim) is indefinite if there is not sufficient structure described in the specification.

With respect to the Group 3 and Group 4 patents, defendants appear to argue, based on Section 112(f), that this term must be further defined, by reference to the specification, in order to connote structure. Again, the Court has concluded that Section

112(f) does not apply here. In proposing constructions for this term as used in these patents, defendants have offered various limitations involving ATM technology, but defendants have not offered any argument under *Microsoft* that repeated and consistent descriptions of the inventions in these patents support these limitations. Nor have defendants pointed to any language in the specifications specifically defining “communication system” in accordance with their proposed constructions. Accordingly, the Court rejects defendants’ proposed constructions.

Sprint argues that the Court should simply adopt its prior construction, but as noted above, that construction was essentially unopposed in the prior cases. Sprint supports its construction by pointing to the various functions contained in the claims. Sprint also cites a couple of places in the specifications, but those excerpts did not define “communication system.” Most importantly, Sprint has not explained why the term requires further construction, or why the term cannot be understood consistent with its ordinary meaning. For these reasons, the Court declines to construe this term in any of these patents.

M. “Narrowband [Communication] System”

The parties dispute the construction of the term “narrowband communication system” found in claims 1 and 24 of the ’3,561 Patent (Group 1), and the term “narrowband system” found in claim 1 of the ’052 Patent (Group 1). Sprint argues that the terms need no further construction. Defendants propose construing the terms to

mean *a local exchange carrier (LEC) switch*.

For the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects defendants’ arguments that Section 112(f) requires that this term be construed as they propose, and that a particular structure is required even absent application of Section 112(f) in order to avoid indefiniteness. Accordingly, the Court rejects defendants’ proposed constructions.

Defendants also appear to take issue with the term “narrowband”. Defendants’ expert states that “narrowband communication system” and “narrowband system” are imprecise and have relative meanings that change “as technology changes resulting in faster connection speeds.” The relevant inquiry, however, is a term’s meaning as understood by a person skilled in the art *at the time of the invention*. *See Phillips*, 415 F.3d at 1312-13. Sprint’s expert states that these terms were understood by those skilled in the art at that time, and defendants’ expert has not disputed that particular fact. Neither side has proposed a definition of the term “narrowband”. Accordingly, the Court declines to construe these terms.

N. “Packet [Communication] System”

The parties dispute the construction of the term “packet communication system” found in claims 1 and 24 of the ’3,561 Patent and claim 1 of the ’052 Patent (Group 1), and the term “packet system” found in claim 11 of the ’6,561 Patent (Group 1). Sprint argues that the terms need no further construction. Defendants argue that the terms are

indefinite.

For the same reasons set forth above, *see supra* Part III.A.1, the Court rejects defendants’ arguments that these terms are indefinite under Section 112(f). Defendants’ expert also states that the term “packet communication system” has a variety of meanings depending on the context, but he does not take issue with the statement by Sprint’s expert that one skilled in the art would understand this term in this context, except to challenge its application to a particular embodiment. At any rate, defendants have not shown by clear and convincing evidence that these claims are invalid as indefinite.

In *Big River*, the Court declined to construe further the term “packet communication system” as used in patents in the Group 1 family because Big River had not explained why the modifier “packet” required further definition. Similarly here, defendants have not explained why “packet” should be not be interpreted according to its usual meaning in the art in the context of these claims; nor have defendants offered their own construction of that term. Accordingly, the Court declines to construe these terms.

O. “Asynchronous Communication System”

The parties dispute the construction of the term “asynchronous communication system” found in claim 1 of the ’932 Patent (Group 1). Sprint argues that the term needs no further construction. Defendants propose construing the term to mean *an ATM*

network.

In support of their construction, defendants again appear to argue that a corresponding structure must be identified from the specification. For the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects such an argument, whether based on Section 112(f) or Section 112(b).

In *Vonage*, the Court declined to construe “asynchronous communication” as used in a patent in the Group 1 family to mean “ATM communication,” based on the fact that one skilled in the art would understand such a communication to be one in which the transmitting and receiving devices do not share a common clock. *See Vonage*, 500 F. Supp. 2d at 1318-19. In *Big River*, the Court referenced that construction from *Vonage* and the acceptance of “asynchronous” as a term of art understood in this field in declining to construe further the term “asynchronous communication system.” *See Big River*, 2009 WL 1992537, at *7. Defendants cite to their expert’s statement that the term “asynchronous communications system” was not well known in the art, although they concede that “asynchronous” has a plain and ordinary meaning. Defendants have not explained how the Court erred in *Big River*, however, or attempted to explain why “asynchronous” should not be given its plain meaning in modifying “communication system,” or why the entire term should be construed differently in this context from the ordinary meaning. Accordingly, as in *Big River*, the Court declines to construe this term.

P. “Device”

The parties dispute the construction of the term “device” found in claim 1 of the ’052 Patent (Group 1). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument.

Defendants concede that “device” has a plain and ordinary meaning, and defendants have not proposed a different construction or explained why the term should be interpreted other than in accord with that plain meaning. Thus, the Court declines to construe this term.

Q. “Routing System”

The parties dispute the construction of the term “routing system” found in claim 2 of the ’429 Patent (Group 2). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument. In light of the Court’s construction in the same patent claim of the term “routing”, *see supra* Part III.C, the Court declines to construe further the term “routing system.”

R. “Service Node”

The parties dispute the construction of the term “service node” found in claim 1

of the '224 Patent (Group 3). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument. Again, the fact that this term is described in this method claim in terms of what it *does* instead of what it *is* does not render the claim indefinite. *See supra* Part III.A.2.

Defendants complain that the specification does not adequately distinguish “service node” from “service platform,” but the relevance of that argument is unclear, as “service platform” is not a term found in this claim. Moreover, as defendants concede, the specification refers to “a service node in a service platform” ('224 Patent, at 5:67), and the Court does not agree that other excerpts from the specification suggest that the two terms may be synonymous. Defendants’ expert states that this term does not have an accepted meaning in the field, but Sprint’s expert disagrees and cites a number of other contemporary patents in this field using the term.

The method of the claim includes selecting a service node to provide a service and transmitting a message and a user communication to the service node. Thus, as noted by Sprint’s expert, the service node is used for further call processing to provide a particular service for a call (with examples of such services found in various dependent claims). The Court concludes that defendants have not shown by clear and convincing evidence that the use of the term “service node” renders this claim invalid as indefinite. The Court declines to construe this term.

S. “Service Platform System”

The parties dispute the construction of the term “service platform system” found in claim 11 of the ’340 Patent (Group 3). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification. For the same reasons set forth above with respect to “service node,” the Court rejects defendants’ indefiniteness arguments. *See supra* Part III.R. Moreover, as Sprint notes, the specification for this patent contains a long discussion of “service platform systems.” Nor have defendants shown how the claims could be construed in various ways because of the use of this term. Defendants suggest that this term could refer to an interworking unit, but this claim does not include that term, and defendants have not cited any portion of the specification that supports that argument.

In the event that the Court fails to find this claim indefinite, defendants offer an alternative construction containing various limitations. Defendants have not adequately provided a basis to define this term with those limitations, however, as they have not cited any places in which the specification defines the term in that manner, disavows claim scope, or repeatedly and consistently describes the invention or this term in that manner. Accordingly, the Court rejects defendants’ proposed construction, and it declines to construe this term.

T. “Control System”

The parties dispute the construction of the term “control system” found in claim 11 of the ’918 Patent (Group 4). Sprint contends that no further construction is needed, while defendants argue that the term is indefinite, although both sides offer alternative constructions.

The Court first rejects defendants’ argument pursuant to Section 112(f), which has not been shown to apply here. *See supra* Part III.A.1. The Court also rejects defendants’ argument under Section 112(b), as defendants have failed to show that this term renders the scope of this claim uncertain.

Sprint argues that no further construction is necessary. Defendants’ alternative construction is to construe this term to mean *the disclosed Call Process Control System (CPSC)*, with a lengthy description of the CPSC. The Court agrees with defendants that “control system” as used in this patent claim is synonymous with “call process control system” as used in the specification. “Control system” is not mentioned in the specification other than as a part of the term “call process control system.” Moreover, it is clear from the claims and the specification that the invention includes a “call process control system.” In independent claims 1 and 11 of this patent, the claimed method include steps in three elements: a control system including control system data tables; a call processor; and an interworking unit. The specification’s abstract begins by describing “[a]n architecture for connecting a call [that] comprises a call processor, a signaling interface, a call process control system (CPCS), and an interworking unit.” (’918 Patent, Abstract.) The specification’s summary of the invention begins by

describing the invention as comprising a call processor, a signaling interface, a call process control system, and an interworking unit. ('918 Patent, at 1:50-65.) In the next paragraph, the summary describes the invention as comprising a system involving a call processor and a call process control system. Thus, the specification repeatedly and consistently describes the invention as including a “call process control system,” which is called a “control system” in the claim at issue.

Defendants’ construction includes a number of functional limitations, but the Court rejects that description of the call process control system because it is taken only from a particular embodiment. Defendants have not shown that the invention is repeatedly and consistently described with those limitations. The summary does twice describe the call process control system as a system “adapted to manage the call-associated data and to exchange the call-associated data with the call processor.” ('918 Patent, at 1:59-61, 2:8-10.) Thus, the Court concludes that a proper construction of the “control system” from the claim should track that repeated description.

The Court concludes that, because the claimed “control system” is given the different term “call process control system” in the specification, there is at least some potential for jury confusion, and the term should be construed by the Court. Accordingly, the Court construes this term to mean *call process control system, which is a system adapted to manage the call-associated data and to exchange the call-associated data with the call processor.*

U. “Narrowband Switch”

The parties dispute the construction of the term “narrowband switch” in claim 1 of the ’932 Patent (Group 1). Defendants propose to construe the term to mean *circuit switch*. The Court rejects defendants’ proposed construction, as defendants have not pointed to any language in the specification defining this term as or limiting its scope to a particular type of switch. Indeed, defendants have not cited any place in which the specification mentions circuit switches. Defendants argue that one particularly-identified narrowband switch is a circuit switch (according to their expert), but there is no basis to limit this term to a single embodiment.

In its proposed construction, Sprint incorporates its construction of “switch” and essentially construes the modifier “narrowband” to mean *in a narrowband format*. In another place in its briefs, however, Sprint argues that this term need not be construed. The Court does not believe that defining the modifier “narrowband” to mean “in a narrowband format” is helpful, and, as noted above, *see supra* Part III.M, the parties have not offered meaningful constructions of the word “narrowband”. Accordingly, the Court declines to construe this term.

V. “Signaling Processor”

The parties dispute the construction of the term “signaling processor” found in claim 11 of the ’340 Patent (Group 3); and claim 1 of the ’992 Patent and claim 1 of the ’912 Patent (Group 4). Sprint argues that no construction is necessary. Defendants

argue that the term is indefinite under Section 112(f), but for the reasons stated above, *see supra* Part III.A.1, that section does not apply. The Court also rejects defendants’ alternative construction that would limit the scope of this term to the disclosed CCM. *See supra* Part III.A.1, 3.

In their alternate construction, defendants would also limit this term as used in the ’340 Patent to require that the signaling processor be “separate from, and not included in, the claimed service platform system.” Defendants have not supported that limitation other than by citation to the claim itself. Defendants argue that because the claim indicates that the signaling processor transfers certain messaging to a service platform system, those two elements must be separate and distinct. Sprint has not specifically addressed this proposed limitation in its briefs. Nevertheless, the Court concludes that, in the absence of support from the specification, the language of the claim may stand on its own, as the proposed limitations is already contained in the claim itself. Accordingly, the Court declines to construe this term.

W. “[A Processing System] External to Narrowband Switches”

Defendants argue that certain language renders claim 1 of the ’932 Patent indefinite under Section 112(b). The claimed method includes the step of “receiving and processing the first message in a processing system external to narrowband switches to select one of the narrowband switches.” In its supplemental briefs addressing indefiniteness, defendants rely on (a) their previous argument that the claimed

“processing system” should be limited to the disclosed CCP, *see supra* Part III.A, and (b) the specification’s statement that “[i]t is possible to house the CCP within other telecommunications devices, even switches.” (’932 Patent, at 13:65-67.) Defendants argue that it is therefore not clear whether the processing system must be external to *all* narrowband switches, or whether the processing system may be contained in one narrowband switch and select from other switches to which it is external.

The Court rejects this argument. First, as explained above, the Court has rejected defendants’ attempt to limit the scope of the term “processing system” to the disclosed CCP. *See supra* Part III.A. Thus, the CCP is used only in embodiments of the inventions, and descriptions of the embodiments do not provide a proper basis for limiting the scope of the claim.

Moreover, the Court concludes that the scope of the claim is reasonably certain in light of the claim language and the specification. The specification’s abstract and summary make clear that the invention involves a method for processing signals in a location external to the switches in a network that make the connections for the call. (’932 Patent, at Abstract, 3:34-37.) Thus, the claim is clearly limited to a processing system (wherever located) that is in a location external to the switches (those forming the network) from which the processor chooses. The Court concludes that the scope of the claim is reasonably certain, and defendants have not provided clear and convincing evidence of indefiniteness to overcome the presumption of patent claim validity.

X. “Communication Switches” / “Telecommunication Switches”

The parties dispute the construction of the term “communication switches” found in claims 23 and 38 of the ’3,561 Patent (Group 1); and the term “telecommunication switches” found in claim 5 of the ’429 Patent and claim 7 of the ’064 Patent (Group 2). In *Vonage* and *Big River*, the Court construed these terms to mean *devices that set up calls and relay voice and/or data information from one connection to another*. See *Vonage*, 518 F. Supp. 2d at 1317; *Big River*, 2009 WL 1992537, at *22. Sprint urges the Court to construe these terms in the same way in this case. Defendants propose to construe these terms to mean *switching fabric for connecting an input to an output and the control logic for controlling the switching fabric*.

Defendants have not sufficiently supported their construction. They cite to one portion of the Group 1 specification, but that excerpt discusses a switch *processor*. Defendants cite to portions of the Group 2 specification, including excerpts that mention an “ATM fabric.” Defendants have not identified any part of the specifications, however, that defines or describes “switches” or “communication switches” or “telecommunication switches” in accordance with defendants’ construction. Defendants cite to their expert’s declaration, but nowhere therein does the expert espouse such a definition or otherwise suggest that these terms were known to those skilled in the art as having these meanings. Moreover, defendants’ construction is not especially helpful, as the plain meaning of the undefined term “switching fabric” is not clear. Finally, as Sprint points out, defendants’ construction would eliminate switches’ call-setup

functions, which functions are supported by the patents' specifications.

Although defendants state that their construction is "more precise," they have not explained how the Court's previous construction is inaccurate. Accordingly, the Court again construes these terms to mean *devices that set up calls and relay voice and/or data information from one connection to another*.

Y. "In Response to"

The parties dispute the construction of the term "in response to," which is used in claims in many of the patents at issue in this case. Sprint contends that no construction of this phrase is necessary. Defendants do not dispute that this term has a plain and ordinary meaning, but they would add a limitation requiring the action taken "in response to" something to be taken "immediately". The Court rejects this construction, which defendants have not supported by any citation to the patents' specifications. Defendants only argument is that immediacy is implied by the claims because otherwise the claims could have stated merely that one action precedes another, and that the use of the phrase "in response to" suggests that something more is required. Under the plain and ordinary meaning of this phrase, however, that "something more" is the concept of causation. There is no basis to add any temporal limitation to these claims. Accordingly, the Court declines to construe this term.

Z. "Network Code . . . to Provide Egress"

The parties dispute the construction of certain similar phrases in three Group 1 patents. Claim 1 of the '3,561 Patent includes the step of processing the signaling message to select "a network code that identifies a network element to provide egress from the packet communication system for the user communication." Claim 24 of the '3,561 Patent and claim 1 of the '052 Patent include the step of selecting "a network code that identifies a network element to provide egress for the user communication from the packet communication system." Dependent claim 14 of the '6,561 Patent refers to "a network code representing a network element to egress the call from the packet system." Sprint would construe these terms to mean *a code identifying a network element which network element provides an exit from a packet communication system*. Defendants would construe these terms to mean *a logical address of a switch to which the user communication will egress from the packet communication system and which is in a network outside the packet communication system*. The parties' competing constructions thus raise three issues, which the Court will address in turn.

First, defendants seek to construe "network code" to mean *logical address*, based on the following excerpt from the specification:

In one embodiment, the selection of a network characteristic will include the selection of a network code. Network codes are the logical addresses of the network elements.

('3,561 Patent, at 12:47-49.) In *Vonage*, the Court cited this excerpt in agreeing with Vonage that this term should be construed to mean *a logical address identifying a network element that provides an exit from a packet communication system*. See

Vonage, 518 F. Supp. 2d at 1318-19. The Court reconsidered that construction in *Big River*, however, and agreed with Sprint that the term should be construed to mean *a code identifying a network element which network element provides an exit from a packet communication system*. See *Big River*, 2009 WL 1992537, at *7. With respect to the “logical address” construction, the Court noted that a dependent claim in the ’3,561 Patent limits the “network code” to a “logical address of the network element,” and it agreed with Sprint that such a dependent claim suggests that “network code” as used in the independent claim was not intended to be limited to mean “logical address.” See *id.* The Court further concluded that “the specification’s description of ‘network codes’ as ‘logical addresses’ in the second sentence of one embodiment of the invention could be read to be limited to that embodiment.” See *id.*

In this case, defendants argue that the Court got it right in the first instance in *Vonage*. As the Court concluded in *Big River*, however, the presence of the dependent claim does provide evidence of an intent that “network code” be broader in scope than “logical address,” and in light of the ambiguity concerning whether the specification’s apparent definition of “network codes” was intended to be limited to one embodiment, the Court cannot conclude that the presumption of a broader construction in the independent claim should be overcome here. Accordingly, the Court rejects this limitation urged by defendants.

Second, defendants would alter the Court’s construction to limit the “network element” to a “switch”. The Court rejects such a limitation. Defendants cite an excerpt

in which the specification refers to a “destination code” that facilitates egress from the system, and defendants argue that such a code is a LEC switch or another type of switch. The excerpt actually states, however, that the destination code “*typically* represents a network element that is *connected to* a LEC switch.” (’3,651 Patent, at 12:51-53 (emphasis added).) Thus, the specification does *not* state that the destination code *is* a switch, and defendants have relied only on particular embodiments at any rate. Moreover, as Sprint points out, dependent claim 18 of the ’3,561 Patent claims the method wherein the network element comprises a switch, which suggests an intent that “network element” *not* be limited to a switch otherwise. Accordingly, there is no basis to change “network element” to “switch” in the Court’s construction.

Third, defendants propose a construction requiring a network element *to which the user communication will egress from the packet communication system and which is in a network outside the packet communication system*. Defendants argue that their construction is supported by the language of the claims themselves, as the egress must be to an element outside the system. In *Vonage* and *Big River*, however, the Court construed “egress” to mean *an exit* (defendants do not take issue with that particular definition of “egress”), and the ordinary meaning of “egress” and “exit” do not require that they be outside the place being departed, as an exit is usually understood to be on the periphery or the border of that place. The claims do not indicate or suggest that the selected network element is the place outside the system to which the communication is sent; rather, the network element “provide[s] egress” or “egress[es] the call.”

Accordingly, there is no basis to construe these terms with this limitation urged by defendants.

Accordingly, the Court again construes these terms to mean *a code identifying a network element which network element provides an exit from a packet communication system*.

AA. “Transmitting” / “Receiving” / “Transferring”

Defendants argue that the terms “transmitting”, “receiving”, and “transferring” in various patent claims in Groups 1 and 2 should be construed with the following limitation: *the thing a message or instruction is transmitted (or transferred) from is not part of the thing which receives the transmitted (or transferred) message or instruction [and vice-versa], and the message or instruction received is identical to the message or instruction transmitted (or transferred)*. Sprint argues that no such construction is warranted.

Essentially, defendants argue that the use of “transmitting” or “transferring” with “receiving” in the claim language means that the transmitting or transferring element cannot be “part of” the receiving element. Defendants rely on their argument that a CCP, located outside of the communications path, is a fundamental feature of these inventions, but the Court has already rejected defendants’ argument concerning the CCP, which is described only in embodiments of the inventions. *See supra* Part III.A.3. Otherwise, defendants do not cite any evidence to support this construction, and instead rely solely

on the plain meaning of these terms as used in the claims.

Sprint argues that there is no reason, for instance, that the processing system, which controls a packet communication system and from which a control message is transferred (in claim 1 of the '3,561 Patent), cannot be part of the packet communication system to which the control message is transferred. Sprint cites the specification's statement that a CCP (an example of a processing system) could be integrated into a packet-based network. ('3,561 Patent, at 8:35-43.) Defendants argue that such language does not overcome the plain meaning of the claims, and thus refers only to an unclaimed embodiment. The Court agrees with Sprint, however, that such language suggests an intent not consistent with defendants' "not part of" limitation.

In light of that suggestion from the specification and in the absence of any intrinsic or extrinsic evidence supporting defendants' position, the Court is unwilling to impose such a limitation. Nor does the Court agree with defendants that, under the plain meaning of these terms, one device could not transfer or transmit or send something to an element contained in the device or to an element of which that device is a part. (As one simple example, one's smartphone might send itself an e-mail or text.) Without a more specific argument, based not on the general meaning of these terms but based instead on the specific transferring and receiving elements—an analysis not undertaken by defendants here—the Court cannot conclude that the plain meaning of these terms in these patent claims requires the limitation urged by defendants. Moreover, it is not clear what it means if one system or element "is not part of" another in the context of this

technology, and thus defendants' construction could cause confusion for the jury. Accordingly, the Court rejects this proposed construction by defendants.

In the briefs, neither side addressed defendants' proposed limitation that the received message or instruction be identical to the one transferred or transmitted. Accordingly, the Court declines to impose such a limitation, and thus it will not construe these terms.

BB. "A Call Having a First Message and Communications"

The parties dispute the construction of the term "a call having a first message and communications," found in claim 1 of the '932 Patent (Group 1). In *Vonage*, the Court construed "first message" used in this patent to mean *a signaling message that is distinct from the second message*. See *Vonage*, 518 F. Supp. 2d at 1322-23. In *Big River*, the Court reaffirmed that construction, and it construed the term "call having a first message" to mean *a call having a signaling message that is distinct from the second message*. See *Big River*, 2009 WL 1992537, at *9. Sprint argues that the Court should apply the same constructions here.

Defendants have not addressed the Court's previous constructions. Instead, defendants propose that the term "a call having a first message and communications" be construed to include the limitation that *the first message is sent on the same communication path as that used for user communications*. In their initial brief, defendants argue that the specification does not explain how a call could have both a first

message and communications, and as the only possible answer, they point to the specification’s reference in one embodiment to in-band signaling, in which the signaling “must be placed on the actual communications path.” That one embodiment, however, does not provide a proper basis for imposing such a limitation. Moreover, the excerpt cited by defendants—which does not refer to a “first message”—goes on to state that such signaling is usually *removed* from the communications path and transferred to an out-of-band signaling system. (’932 Patent, at 7:50-63.)

In their rebuttal brief, defendants argue that because the claim refers to a “call having a first message,” the first message must be part of the call. That truism, however, does not bear on whether the first message must be part of the communications path, as defendants have not cited any basis to equate “call” with “communications path” in the context of this claim.

For these reasons, the Court rejects defendants’ proposed construction, and it again construes the term “a call having a first message” to mean *a call having a signaling message that is distinct from the second message*.

CC. “Converting the Asynchronous Communication into a User Communication”

Claim 1 of the ’064 Patent includes the step of “converting the asynchronous communication into a user communication.” Defendants propose to construe this term to add the limitation that *the asynchronous communication is not a user communication*,

while Sprint argues that no construction is necessary.

Both sides rely solely on the language of the patent claims. Defendants argue that the plain meaning of the word “converting” means that the two objects cannot have been the same. Sprint argues that this patent claim addresses the conversion of a communication between asynchronous and synchronous formats, but that is certainly not clear from a plain reading of the claim. Sprint also argues that defendants, by their construction, wish to limit the claim to require a conversion both of the asynchronous/synchronous format and the content of the communication, but that too is not clear from defendants’ argument.

The Court does not believe that any further construction of this phrase is necessary, as the claim is already limited by the plain meaning of its terms. Defendants will certainly be free to argue that the “asynchronous communication” and “user communication” referenced by this claim must be different by virtue of the conversion. This Court has already declined to construe the term “user communication,” however, *see supra* Part III.H, and neither side has addressed the particular meaning of “user communication” in the context of this claim. Accordingly, the Court declines to construe this term.

DD. “Generating a . . . Message”

The parties dispute the construction of the term “generating a . . . message,” found in claims 1 and 24 of the ’3,561 Patent and claim 1 of the ’932 Patent (Group 1); claim

1 of the '429 Patent and claim 1 of the '064 Patent (Group 2); and claim 1 of the '224 Patent and claim 11 of the '340 Patent (Group 3). In *Vonage* and *Big River*, the Court construed “generate/generating a message” as used in these Group 1 and Group 2 patents to mean *assemble/assembling information to create a message*. See *Vonage*, 518 F. Supp. 2d at 1312-13; *Big River*, 2009 WL 1992537, at *19-21. Sprint proposes that the Court use the same construction here. Defendants generally accept the Court’s previous construction, but would specify for each claim a particular type of information (network code, identifier) that must be assembled.

In *Vonage*, the Court noted that “the language of the various claims demonstrates that the messages are generated by assembling information because each of the claims requires the generation of a message that includes some particular content.” See *Vonage*, 518 F. Supp. 2d at 1312. Defendants argue that they merely seek to specify that particular content for each of the patent claims. The Court concludes that such an addition is unnecessary, however. If a particular claim explicitly requires that the generated message contains certain content, then that claim limitation is sufficient, and the limitation need not be repeated in the definition of “generating”. Moreover, the Court emphasized in *Vonage* and *Big River* that although the signaling is new, the content contained in the generated message need not be new, as pre-existing content may be included. See, e.g., *Big River*, 2009 WL 1992537, at *20-21. The Court concludes that defendants’ requirement that the assembled information include certain content could cause the jury to believe improperly that the content must be new. Therefore, the

Court declines to include the addition proposed by defendants, and it construes the term “generating a . . . message” in these patent claims to mean *assembling information to create a message*.

EE. “DS0 Connection”

The parties dispute the construction of the term “DS0 connection,” which is found in claim 3 of the ’052 Patent (Group 1); and claim 1 of the ’429 Patent, claim 1 of the ’064 Patent, and claim 7 of the ’084 Patent (Group 2). In *Vonage*, the Court instructed the jury that “DS0 connection” meant *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*. In *Big River*, the Court followed that construction from *Vonage* for each of these patent claims. See *Big River*, 2009 WL 1992537, at *21. Sprint urges the same construction in this case. Defendants argue that no construction is necessary.

Defendants note that this construction refers back to “DS0” and the full name for that acronym, and they argue that this construction is therefore no more helpful to a jury than the term by itself. The term at issue, however, is “DS0 connection,” not just “DS0”, and defendants have not explained why this particular connection should not be construed as it was in the prior cases. Defendants have not argued that the prior construction is inaccurate in any way, and the Court believes that the construction could be helpful to the jury. Accordingly, the Court again construes this term to mean *a channel over which DS0 communication signals (a term of art meaning Digital Signal*

Level 0) are transmitted or received.

FF. “In the Processing System, Selecting a Service and a Service Node”

The parties dispute the construction of the phrase “in the processing system, selecting a service and a service node,” found in claim 1 of the ’224 Patent (Group 3). Sprint argues that no construction of this phrase is needed. Defendants would construe the phrase to mean the following: *The processing system chooses one service from among several available services, and then chooses one service node from among several available service nodes that are capable of providing that service.*

This patent claim includes the following step: “in the processing system, selecting a service and a service node to provide the service based on the information.” Defendants would limit the choice or selection only to one service and one service node. The claim itself refers only to “a service” and “a service node,” and as Sprint points out, under Federal Circuit law, one rule of patent parlance is that “a” means “one or more.” *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008) (citing *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000)). Defendants note that an exception to that rule exists for the situation in which the patentee evinces a clear intent to limit “a” to “one”. *See id.* The prosecution history and specification excerpts cited by defendants, however, do not directly address whether there may be only one service or one service node in the context of this claim, and thus

defendants have not shown a clear intent for such a limitation.

Defendants' construction would also require that there be several available services. While it might be true in a general sense that there are various services that could be used by a caller, defendants' construction could be confusing in the sense that it would require that there be multiple services appropriate for a particular call—a limitation for which defendants have offered no support. Similarly, defendants have not supported its proposed limitation that there be several available service nodes for a particular service. Thus, the Court rejects defendants' proposed limitations relating to the number of services or service nodes.

Defendants would also construe this phrase to impose a sequential limitation, such that the service is chosen first, and then the service node is chosen. Again, however, the prosecution history and specification excerpts cited by defendants do not directly address these questions of whether the two selections must be separate and whether the service must be chosen first. For instance, as Sprint points out, defendants have not pointed to evidence that forecloses the possibility that, because only one service node is available to provide a certain service, the selection of the service compels the selection of the service node, which selections might therefore be understood to occur simultaneously. Thus, because defendants' construction could be understood by a jury to limit the claim improperly, the Court rejects defendants' proposed limitation.

The Court concludes that this phrase may be understood by its plain meaning. Accordingly, the Court declines to construe this phrase.

GG. “Generating . . . a Second Message . . . Wherein the Second Message Indicates the Selected Service and a User”

The parties dispute the construction of the phrase “generating . . . a second message . . . wherein the second message indicates the selected service and a user,” found in claim 1 of the ’224 Patent (Group 3). Sprint would construe this phrase, in accordance with the Court’s prior construction of “generating . . . a message,” *see supra* Part III.DD, to mean *assembling information to create a second message . . . that indicates the selected service and a user*. Defendants would construe this phrase to mean *assembling information, including an identifier of the selected service and an identifier of a user, to create a second message containing that information*. For the same reasons set forth above, *see supra* Part III.DD, the Court rejects defendants’ limitation requiring “identifiers”, as defendants have not shown that the specification defines this term or repeatedly and consistently describes the overall invention in such a way. Nor have defendants adequately supported a limitation of the claim’s plain language requiring only that the message “indicate” the selected service and user. Accordingly, the Court construes this phrase to mean *assembling information to create a second message . . . that indicates the selected service and a user*.

HH. “Identifiers That Are Used for Routing”

Claim 11 of the ’340 Patent (Group 3) refers to the steps of generating and transferring control messaging indicating “identifiers that are used for routing,” and

exchanging communications that include “the identifiers.” Consistent with the Court’s previous construction of “identifier” in the Group 2 patents, *see supra* Part III.K, Sprint would construe these terms again to mean *data for routing information in a packet network*. Defendants argue that the Court’s prior construction is not supported by the Group 3 specification, and they therefore contend that these terms should not be construed.

Sprint concedes that the limitation “in a packet network” from the Group 2 construction is not supported by the claim itself, but it suggests that “identifier” should be construed consistent with its construction in the Group 2 patents for the jury’s sake. The Court concludes, however, that this limitation should not be applied in the context of this patent if such application is inappropriate. On the other hand, the claim does indicate that the identifier is used for routing information, and defendants have not explained why the first part of the Court’s Group 2 construction is not accurate as applied to this patent. Accordingly, the Court construes these terms as used in claim 11 of the ’340 Patent to mean *data for routing information*.

II. “Identifier for Routing”

The parties dispute the construction of the terms “identifier for routing” and “identifier” from claim 1 of the ’992 Patent (Group 4). Sprint again espouses the Court’s prior construction of “identifier”. *See supra* Part III.K. Defendants again seek to add the limitation that the identifier identify a connection, based on their argument that this

invention is limited to ATM technology. The Court has so limited the invention in this patent in its construction of “interworking unit.” *See id.* For the same reasons set forth above, however, the Court declines to graft that limitation onto a definition of “identifier”, as defendants can explain to the jury the features of ATM technology in the context of the claim. *See id.* The Court therefore adopts the more general construction for this term of *data for routing information in a packet network*.

JJ. “Another Control Message”

The parties dispute the construction of the term “another control message,” found in claim 1 of the ’992 Patent (Group 4). That claim recites the following method “for operating a communications system to handle a call”:

receiving signaling for the call into a signaling processor;
in the signaling processor, processing the signaling to select an identifier for routing the call;
transferring a control message indicating the identifier from the signaling processor;
receiving user communications for the call and the control message into an interworking unit;
in the interworking unit, converting the user communications into asynchronous communications including the identifier in response to the control message;
transferring the asynchronous communications from the interworking unit;
in the interworking unit, monitoring the user communications during the call to detect a call trigger; and
transferring a trigger message from the interworking unit if the call trigger is detected;
receiving and processing the trigger message in the signaling processor; and
transferring another control message from the signaling processor in response to processing the trigger message.

(Emphasis added.) Defendants would add the following limitation concerning the term “another control message”: *the another control message will not in any way cause the interworking unit to change the processing, translation or routing of the call.*

Defendants do not support this argument by any citation to the specification; rather, defendants argue only that this limitation is required by a logical reading of the claim. Although their argument is not entirely clear, defendants appear to argue that because the interworking unit processes and routes calls in response to the “control message” mentioned earlier in the claim, the interworking unit could not also perform such functions in response to “another control message” that is transferred in response to a trigger message. The Court rejects this argument. Under a plain reading, the claim does not prohibit any actions after the creation of “another control message,” and there is no reason logically (according to the terms of the claim) why the interworking unit could not perform some function in response to the creation of the additional control message. Accordingly, the Court declines to impose this limitation urged by defendants.

*KK. “Transferring the Asynchronous Communications . . .
Monitoring the User Communications”*

The parties dispute the construction of the phrase “transferring the asynchronous communications . . . monitoring the user communications,” found in claim 1 of the ’992 Patent (Group 4). By this argument, defendants do not actually seek to construe particular terms contained in this claim; rather defendants seek to add three particular

limitations to this claim, which the Court will address in turn.

First, defendants would add the limitation that *the occurrence of a call trigger will not in any way affect the processing, translation or routing of the user communications.*⁷

Defendants appear to concede (for instance, in their argument relating to the construction of “call trigger”) that additional processing, translation, or routing does occur after the detection of a call trigger, but they argue that such processing is not caused directly by the call trigger, in the sense that additional steps must first occur. The fact that additional steps may be necessary, however, does not mean that the call trigger has not “in any way affect[ed]” the processing, as the ordinary meaning of causation does not preclude a chain of events to achieve the final result. It will be clear to the jury from the claim itself that various steps are required, and defendants’ proposed limitation could confuse the jury by suggesting that no further processing may occur. Accordingly, the Court rejects this proposed limitation.

Second, defendants would add the limitation that *the asynchronous communications are separate and distinct from the trigger message*. Defendants argue that, according to the language of the claim (set forth in the preceding section), user

⁷The joint claim construction submission and defendants’ brief use the word “effect” instead of “affect” in defendants’ proposed construction. Defendants argue, however, that processing, translation, and routing are not “affected” by the detection of a call trigger, and that such processing, translation, and routing may not be “changed” directly by a call trigger. Thus, the Court has assumed that defendants intended to use the word “affect” in their proposed construction. Even if “effect” were intended, however, the Court would not impose such a limitation for this claim.

communications are converted into asynchronous communications prior to the detection of a call trigger, and the trigger message is generated after the detection of the call trigger, and that distinction means that the “asynchronous communications” and the “trigger message” referenced in the claim must be separate and distinct. Sprint does not dispute that sequence. Sprint argues, however, that the patent contemplates calls between synchronous and asynchronous networks, and that a trigger may be sent from either side, which would mean that a trigger message could be in asynchronous format. By that argument, Sprint has not disputed that the trigger message would be distinct from the *particular* asynchronous communications referenced in the claim; rather, Sprint appears to argue that the trigger message is not necessarily distinct from *all* asynchronous communications.

The Court appreciates this concern by Sprint and agrees that defendants’ proposed limitation could cause some confusion. The Court also concludes that the claim language adequately conveys that the particularly-referenced asynchronous communications are different from the trigger message. Thus, the Court declines to add any such explicit limitation.

Third, defendants would add the limitation that *the call trigger is converted into asynchronous communications in the same manner as the user communications*. The Court does not agree, however, that the language of the claim in any way suggests that the trigger message must not only be converted, but also be converted in a particular manner. Accordingly, the Court declines to impose this proposed limitation.

LL. “Call Trigger”

The parties dispute the construction of the term “call trigger” from claim 1 of the ’992 Patent (Group 4). Sprint would construe the term to mean *an event or signal that causes some call processing, call translation, or call routing to occur when trigger criteria is satisfied* [sic]. Defendants would construe the term to mean *an event or signal intended to cause some change in the processing, translation or routing of the call*.

Sprint’s proposed definition is taken verbatim from the specification. (’992 Patent, at 7:3-6.) Defendants do not address the fact that Sprint’s proposed construction follows an express definition of the term in the specification. Instead, defendants argue that Sprint’s construction improperly implies that the processing, translating, and routing are caused directly by the trigger message, when in fact additional steps are required. As set forth above, however, *see supra* Part III.KK, the Court does not believe that the word “causes” prohibits the need for multiple steps in the chain of causation. In addition, defendants’ construction ignores the specification’s definitional requirement that criteria be satisfied. Accordingly, the Court construes this term in accordance with the specification’s definition.

The Court does have some concern about using the phrase “when trigger criteria is satisfied,” since “criteria” is a plural noun. Use of this phrase unaltered could cause some confusion concerning whether there must be multiple criteria. The Court believes that use of the phrase “all criteria are satisfied” adequately encompasses situations with either one criterium or multiple criteria, as no doubt intended by the patentee.

Accordingly, the Court construes “call trigger” in this claim to mean *an event or signal that causes some call processing, call translation, or call routing to occur when all trigger criteria are satisfied*.

MM. “Trigger Message”

Defendants argue that the term “trigger message,” found in claim 1 of the ’992 Patent (Group 4), is indefinite. That claim includes the steps of monitoring user communications to detect a call trigger; if a call trigger is detected, transferring a trigger message from the interworking unit; receiving and processing the trigger message in the signaling processor; and transferring another control message from the signaling processor in response to that processing of the trigger message.

Defendants argue that “trigger message” has no ordinary meaning to one skilled in the art. The Court concludes, however, that the meaning of that term is easily understood in the context of the claim, as the language of the claim itself makes its scope clear as it relates to the trigger message. As defendants concede in their brief, “trigger message” as used in the claim “refers to some kind of message that is generated by the interworking unit in response to its detection of a call trigger [and] that is transferred to the signaling processor.” Defendants complain that the specification describes other types of messages performing those functions, but those references relate only to particular embodiments of the invention. Defendants have not shown by clear and convincing evidence that the scope of this claim is not reasonably certain and is therefore

invalid as indefinite. Accordingly, the Court rejects this argument, and it declines to construe this term.

NN. “Processing . . . to Transmit”

The parties dispute the construction of the term “processing . . . to transmit,” found in claim 1 of the ’912 Patent (Group 4). Defendants propose to construe this term to mean *processing and transmitting*. Sprint would construe the term to mean *processing . . . to participate in the transmitting*, in accordance with the Court’s previous construction of the term “processing . . . to select.” *See supra* Part III.I.

Just as they argued with respect to the term “processing . . . to select,” *see id.*, defendants contend that the same element (the signaling processor) that does the processing must also make the decision and do the transmitting. The Court disagrees with defendants, however, that their construction is compelled by the language of the claim itself, as the claim does not require processing and transmitting (by the signaling processor), but instead requires only “processing . . . to transmit.” Defendants cite to the Abstract and specification for the patent, but those excerpts use the same wording that the claim does. Accordingly, for the same reasons set forth above with respect to the term “processing . . . to select,” *see id.*, the Court construes the term “processing . . . to transmit” in this patent claim to mean *processing . . . to participate in the transmitting*.

OO. “Identifier for Routing”

The parties dispute the construction of the terms “identifier for routing” and “identifier” found in claim 1 of the ’912 Patent (Group 4). Sprint again proposes the Court’s prior construction of “identifier”. *See supra* Part III.K, Part III.II. Defendants again seek to add the limitation that the identifier identify a connection, based on their argument that this invention is limited to ATM technology. The Court has so limited the invention in this patent in its construction of “interworking system,” which is also required in this patent claim. *See infra* Part III.PP. For the same reasons set forth above, however, the Court declines to graft that limitation onto a definition of “identifier”, as defendants can explain to the jury the features of ATM technology in the context of the claim. *See supra* Part III.K. The Court therefore adopts the more general construction for this term of *data for routing information in a packet network*.

PP. “Interworking System”

The parties dispute the construction of the term “interworking system” from claim 1 of the ’912 Patent (Group 4). Sprint would define this term to mean *a system that translates communications between narrowband and packet formats*. Defendants propose the construe the term to mean *a plurality of ATM interworking multiplexers each connected to the same ATM cross-connect*.

Sprint opposes defendants’ first proposed limitation—limiting the interworking system to *a plurality of ATM interworking multiplexers*—by referring to its opposition to defendants’ construction of “interworking unit” in other patent claims. *See supra* Part

III.J. The Court agrees with defendants, however, that this invention, like the other inventions involving an “interworking unit,” is repeatedly and consistently described as including ATM technology. For instance, in its background section, the specification states that “[t]he invention relates to tandem systems for circuit-based traffic, and in particular, to tandem systems that use Asynchronous Transfer Mode (ATM) systems to interconnect various circuit-based networks or network elements.” (’912 Patent, at 1:16-10.) Similarly, the specification begins its summary of the invention as follows:

The invention includes a telecommunications tandem system and method for providing a tandem connection for a call. The tandem system comprises a first ATM interworking multiplexer, an ATM cross-connect, a second ATM interworking multiplexer, and a signaling processor.

(’912 Patent, at 1:66-2:3.) The summary continues by describing the functions of the ATM components of the system. (’912 Patent, at 2:3-30.) Accordingly, for the same reasons set forth above with respect to the term “interworking unit,” the Court concludes that this term is appropriately limited to ATM interworking multiplexers. Moreover, Sprint has not challenged defendants’ proposed language requiring a “plurality” of such multiplexers, and the Court will therefore use that term as well in its construction.

Sprint does oppose specifically the second part of defendants’ construction, which would require each ATM multiplexer to be connected to the same ATM cross-connect. Sprint argues that defendants have supported that limitation only by reference to particular embodiments. As noted above, however, the specification’s summary describes the invention as including an ATM cross-connect, and it further describes that

cross-connect as being connected to both ATM multiplexers. ('912 Patent, at 2:1-13.) Thus, the invention as a whole is described in a manner consistent with defendants' proposed limitation, and the embodiments in the specification follow that description. Sprint cites language from the specification noting that variations from one embodiment are contemplated by the invention, but there is nothing to indicate that those variations could include not having the multiplexers connect to the same cross-connect. Sprint also purports to cite to versions of the invention that do not include any discussion requiring an ATM cross-connect, but the cited excerpts relate only to the signaling processor, an element separate from the cross-connect. ('912 Patent, at 10:62-11:39.) The Court therefore agrees with defendants that the specification repeatedly and consistently describes the invention in accord with this proposed limitation.

Accordingly, the Court construes this term to mean *a plurality of ATM interworking multiplexers each connected to the same ATM cross-connect*.

QQ. "Receiving a Response Message"

The parties dispute the construction of the term "receiving a response message," found in claim 1 of the '912 Patent (Group 4). Sprint argues that no construction is necessary. Defendants would construe this term to add the following limitation: *the response message is received by the signaling processor of the communications system*.

Claim 1 of the '912 Patent recites a method for operating a communications system comprising the following steps:

receiving a call setup message including a called number into a signaling processor;
processing the called number in the signaling processor to transmit a query;
receiving a response message responsive to that query that includes number portability information for the called number;
processing the number portability information to select an identifier for routing;
transmitting a control message that indicates the identifier;
receiving a Time Division Multiplex (TDM) user communication and the control message into an interworking system;
converting the TDM user communication into packet communications that include the identifier for routing; and
transferring the packet communications that include the identifier for routing.

(Emphasis added.)

Defendants argue that the signaling processor that sent the query would also be the element receiving the response message in return. The Court, however, has already refused to construe this claim to require that the signaling processor actually transmit the query (it need only participate in the transmitting). *See supra* Part III.NN. Moreover, while some steps specifically require the signaling processor to perform some function, such assignation is absent from the step of “receiving a response message.”

Defendants rely on the Abstract of the patent, which states that the signaling processor does perform the functions listed in the first five steps of the claim, including receiving the response message. The specification’s summary, however, while noting that the signaling processor performs certain functions, does not mention the signaling processor’s receipt of the response message. Otherwise, defendants cite only embodiments of the invention.

The Court cannot conclude that the single statement in the abstract is sufficient

in this case to support the imposition of a limitation not contained in the claim language. It is true than a patent's abstract may be considered by a court in considering the scope of the invention, *see Hill-Rom Co. v. Kinetic Concepts, Inc.*, 209 F.3d 1337, 1341 n.* (Fed. Cir. 2000)⁸, as this Court has done in finding that other limitations are supported by repeated descriptions of the invention in the specification. *See, e.g., supra* Part III.J. Nevertheless, the abstract, by itself, has limited usefulness in interpreting the scope of the claims, as (at the time of this patent application) the abstract was limited to 150 words and was intended to reveal only the nature and gist of the technical disclosure upon a cursory inspection. *See* 65 Fed. Reg. 54604, 54667-68 (Sept. 8, 2000) (amending 37 C.F.R. § 1.72(b)). Defendants have not identified any authority suggesting that a single statement in the Abstract is enough to satisfy the Federal Circuit's standard for imposing a limitation not contained in the claim language if the specification repeatedly and consistently describes the invention with that limitation. In fact, courts have refused to import limitations into patent claims based solely on statements in the abstract. *See, e.g., Verco Decking, Inc. v. Consolidated Sys., Inc.*, 2014 WL 3894144, at *6 (D. Ariz. Aug. 8, 2014) (because of its limitations, the abstract "as a practical matter cannot describe the full scope of all of the claims of the patent"); *Takeda Pharm. Co. v. Mylan*,

⁸The Federal Circuit so held despite the statement in the applicable regulation, 37 C.F.R. § 1.72(b), that the abstract "shall not be used for interpreting the scope of the claims." *See Hill-Rom*, 209 F.3d at 1341 n.*. In 2003, in light of that holding in *Hill-Rom*, the regulation was amended to remove that statement prohibiting the use of the abstract for claim interpretation. *See* 68 Fed. Reg. 38611, 38614 (June 30, 2003) (amending 37 C.F.R. § 1.72(b)).

Inc., 2012 WL 4832813, at *8-10 (S.D.N.Y. Oct. 11, 2012) (patents did not contain repeated descriptions of the invention with the proposed limitation, and single description in the abstract was not a sufficient basis by itself; distinguishing Federal Circuit cases that relied on multiple descriptions of the invention).

Accordingly, the Court cannot conclude that the specification repeatedly and consistently defines the invention as having the signaling processor receive the response message, and the Court therefore rejects defendants' proposed construction and declines to construe this term.

RR. "Call Setup Message"

The parties dispute the construction of the term "call setup message" from claim 1 of the '912 Patent (Group 4). Sprint argues that the term should not be construed. Defendants would construe the term to mean *a message used by the signaling processor to establish connections between the calling and called parties*.

Claim 1 begins with the step of "receiving a call setup message including a called number into a signaling processor." The claim does not contain the limitation urged by defendants; the only limitation contained in the claim is that the call setup message must include a called number. Defendants cite only two pieces of evidence to support their limitation. First, defendants cite to a statement in the specification, but that statement mentions "a call set-up message," in "various embodiments," as only one of many possible bases for the signaling processor's selection of connections for the call. The

specification does not define this term as defendants propose, and it cannot be said that the specification repeatedly and consistently describes the invention with this limitation. Second, defendants cite to the patent's prosecution history, in which the patentee distinguished prior art on the basis that that prior art did not "dynamically control the interworking point by dynamically specifying the routing identifier." Defendants argue that such evidence supports its construction because "[d]ynamic control in this context is the establishment of connections for the call between the calling and called parties based [on] the call set-up message." Defendants offer no support for that statement, however. Thus, there is no basis to conclude from the prosecution history that this claim requires that the call setup message must be used to establish connections.

Because defendants have not adequately supported their proposed limitation, the Court rejects that construction, and it declines to construe this term.

SS. "Processing . . . to Transfer"

The parties dispute the construction of the term "processing . . . to transfer" from claim 11 of the '918 Patent (Group 4). In accordance with the Court's prior construction of the term "processing . . . to select," *see supra* Part III.I, Sprint would construe this term to mean *processing . . . to participate in the transferring*. Defendants would construe this term to mean *the call processor transfers the control message to the interworking unit*. Thus, as with the terms "processing . . . to select" and "processing . . . to transmit," *see supra* Part III.I, Part III.NN, the issue is whether the processing

element (in this case, a call processor) must actually transmit the control message or must only participate in the transmitting.

The Court again disagrees with defendants that the language of the claim itself supports their construction. To the contrary, the claim does not require “processing . . . and transferring” by the call processor, but only requires “processing . . . to transfer.” In this case, however, defendants are able to support their construction with citations to descriptions in the specification of the invention itself. For instance, the specification’s summary states that, in the present invention, “[t]he call processor transports a control message identifying the selected connection,” and [a]n interworking unit is adapted to receive the control message from the call processor.” (’918 Patent, at 1:54-55, 1:61-62.) The summary later repeats that, in the present invention, “[t]he call processor transports a control message identifying the selected connection.” (’918 Patent, at 2:3-4.) These statements distinguish this dispute from those involving the construction of “processing . . . to select” and “processing . . . to transmit,” because in this case defendants have been able to demonstrate that the patent’s specification repeatedly and consistently describes the invention in a manner consistent with the proposed limitation.

Accordingly, the Court construes “processing . . . to transmit” in this patent claim to require that *the call processor transfers the control message to the interworking unit*.

TT. “Connection”

The parties dispute the construction of the term “connection” from claim 11 of the

'918 Patent (Group 4). Sprint proposes to construe the term to mean *transmission media that may be used to carry user communications between elements of a communication system and/or other devices*. Defendants propose to construe the term to mean *the transmission media to be used for the call*.

Claim 11 of the '918 Patent includes the following step: “in an interworking unit, receiving the control message, and in response to the control message, receiving user communications in a first format from a first connection, converting the user communications to a second format, and transferring the user communications in the second format over the second connection.” The specification contains the following statement concerning the meaning of the term “connection”:

Connections are used to transport user communications and other device information between communication devices and between elements and devices of architecture system **102**. The term “connection” as used herein means transmission media that may be used to carry user communications between elements of architecture system **102** and to other devices.

(’918 Patent, at 4:6-12.) Each side bases its construction on the express definition of “connection” in the second sentence of that excerpt.

Although both proposed constructions start with the concept of “transmission media,” the constructions diverge from there. First, Sprint opposes defendants’ use of the phrase “for the call.” Defendants argue that the previous step in the patent claim shows that the user communications that are carried are for a call. The references to “a call” in the preceding step, however, are related to signaling information and a control

message for the call. Sprint notes that connections carry user communications, while links transport signaling and control messages. ('918 Patent, at 3:56-4:15.) The Court agrees with Sprint that a reference to “a call” in defining “connection” is inappropriate and unnecessary and potentially confusing, and the Court rejects that proposed language by defendants.

Second, under Sprint’s construction, the transmission media “may be used,” while defendants’ construction requires that the media actually be used to carry user communications. Although the definition referenced by both sides includes the “may be used” language, the Court agrees that in the context of this claim, the connections are actually used for the transfer of user communications. Sprint has not addressed this issue in its briefs, and thus it has not disputed that the connections are actually used. Moreover, the sentence preceding the express definition uses the words “[c]onnections are used.” Accordingly, the Court declines to use the “may be used” language of Sprint’s construction.

Third, defendants argue that Sprint’s modification of the specification’s definition is not accurate concerning the elements between which user communications are carried. The specification’s definition is a bit unwieldy and potentially confusing with respect to the phrase “between elements of architecture system **102** and to other devices.” The preceding sentence in the specification makes clear that the messages may travel either between communication devices or between elements and devices of architecture system **102**, and the Court sees no reason why that sentence’s clearer explanation should not be

used in this construction.

Finally, there remains the construction of “architecture system **102**.” Sprint would change that term referencing an embodiment to “a communications system,” while defendants offer no alternative for that term. The present invention is described as an “architecture” or a “system for connecting a call” comprising a call processor, a signaling interface, a call process control system, and an interworking unit. (’918 Patent, at Abstract, 1:50-65). “Architecture system **102**” comprises those same elements. (’918 Patent, at 3:32-35, Fig. 1.) Thus, the Court agrees with Sprint that “architecture system **102**” is most accurately referred to as a “communication system.” Because “connection” is used in a claim that describes “a method for operating a communication system,” however, it is more appropriate to refer in the construction of “connection” to “*the* communication system.”

Accordingly, the Court construes “connection” in this claim to mean *transmission media used to carry user communications between communication devices or between elements and devices of the communication system*.

UU. “Control System Data Tables” / “Call Processor Data Tables”

The parties dispute the construction of the terms “control system data tables” and “call processor data tables,” found in claim 11 of the ’918 Patent (Group 4). Sprint contends that no construction is needed for these terms. Defendants do not offer any construction by which these terms are defined. Accordingly, the Court declines to

construe these terms.

Defendants do propose that the Court add the limitation that *the “control system data tables” are identical in format to the “call processor data tables.”* The Court rejects that limitation. First, defendants note that the patent claim refers to the transfer of data between the two kinds of data tables without the additional step of reformatting the data. The Court agrees with Sprint, however, that although such an omission may *permit* the data tables to be in the same format, it does not require that.

Second, defendants cite to one statement in the specification indicating that control system data tables are identical to call processing tables. (’918 Patent, at 5:22-24.) That statement refers only to an embodiment of the invention, however. As Sprint notes, in another embodiment, the two kinds of data tables are described merely as “similar”. (’918 Patent, at 7:44-45.) Defendants also cite the specification’s statement that the control system in one embodiment “may process the data to make sure it is in the correct format prior to filling the tables in call processor **308**.” (’918 Patent, at 7:47-49.) That statement does not suggest that the two kinds of data tables have the same format, however, and it relates to an embodiment at any rate. Defendants have not shown that the specification repeatedly and consistently describes the invention as including the proposed limitation.

Finally, the Court rejects defendants’ argument based on the patent’s prosecution history. Defendants note that the patentee distinguished prior art on the basis that the other patent did not teach a system involving the transfer of data between these two types

of data tables. That statement, however—like the patent claim at issue here—does not suggest anything about whether the formats for these types of data tables must be identical.

For these reasons, the Court rejects defendants’ proposed limitation for these terms, which it declines to construe.

VV. “Call Processor”

The parties dispute the construction of the term “call processor” from claim 11 of the ’918 Patent (Group 4). Sprint contends that no construction is necessary. Defendants propose a lengthy construction for this term that would identify five different features and functions for the “call processor.” Defendants base that construction on a description of one embodiment of a call processor from the specification. (’918 Patent, at 4:16-28.) The Court rejects that construction for that very reason—it is taken from a description of one embodiment. Defendants have not shown that the specification describes the invention as having a call processor with each of those features.

Defendants argue that the claim itself requires certain of those features and functions, but that fact actually supports Sprint’s position, as the claim itself may be easily understood as imposing certain limitations. Defendants also suggest that the structure of the “call processor” is not sufficiently defined if their construction is not adopted, but they support that argument only with a citation to a case involving the application of Section 112(f), which does not apply here. *See supra* Part III.A.1.

Accordingly, the Court declines to construe this term.

WW. “Call Routing Data”

The parties dispute the construction of the term “call routing data” from claim 11 of the ’918 Patent (Group 4). Sprint contends that this term should not be construed. Defendants propose to construe the term to mean *data which is used to select a mapping between a circuit based connection and an ATM virtual connection*.

Defendants seek by this construction to limit the claim to the use of ATM technology. The Court has already construed the term “interworking unit” as used in this patent claim to mean an ATM interworking multiplexer, based on its conclusion that the invention of this patent is repeatedly and consistently described as using ATM technology. *See supra* Part III.J. The Court is not persuaded, however, that such limitation should again be inserted into the claim through the construction of this term. Defendants argue that the “call routing data” is used to select mapping between two connections, one of which must be an ATM connection, that are “interworked” by the interworking unit in the final step of the claim. That interworking unit has already been defined to mean an ATM multiplexer, however, and defendants will be free to explain at trial that such a multiplexer would use an ATM connection. Accordingly, the Court declines to construe this term.

XX. “Format”

The parties dispute the construction of the term “format” from claim 11 of the ’918 Patent (Group 4). Sprint contends that this term should not be construed. Defendants propose to construe the term to mean *data which is used to select a mapping between a circuit based connection and an ATM virtual connection*. The Court rejects defendants’ construction, and thus declines to construe this term, for the same reasons set forth in the preceding section. *See supra* Part III.WW.

IT IS THEREFORE ORDERED BY THE COURT THAT certain terms in the patents at issue in this action are construed as set forth herein.

IT IS SO ORDERED.

Dated this 9th day of October, 2014, in Kansas City, Kansas.

s/ John W. Lungstrum
John W. Lungstrum
United States District Judge

EXHIBITS 18-20

**REDACTED IN
THEIR ENTIRETY**

EXHIBIT 21

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

SPRINT COMMUNICATIONS
COMPANY L.P.,

Plaintiff,

V.

TIME WARNER CABLE, INC., et al.,

Defendants.

Case No. 11-2686-JWL

JURY INSTRUCTIONS

INSTRUCTION NO. 1

The time has now come for me to explain to you the law that will govern your jury deliberations.

You are duty bound to follow the law as I explain it to you in the instructions that I am about to give you. You as jurors are the sole judges of the facts. This means that you must take the law as I explain it to you and apply the law to the facts revealed by the evidence.

Do not single out any one instruction alone as stating the law. Rather, consider my instructions in their entirety.

Also, do not concern yourselves with the wisdom of the law. Despite any opinion you may have about what the law should be, you would violate your sworn duty if you were to base your verdict upon any view of the law other than that given to you in these instructions.

INSTRUCTION NO. 2

Counsel's statements and arguments are not evidence unless they are admissions or stipulations. When the attorneys for the parties agree that a particular fact exists, that is referred to as a "stipulation", and the jury must accept that stipulation as true.

You may consider as evidence everything that was admitted during trial, such as witness testimony, an item or document marked as an exhibit, or any other matter admitted into evidence such as an admission, agreement, or stipulation. You must entirely disregard any evidence with respect to which I sustained an objection or which I ordered stricken.

You are to consider only the evidence, but you are not limited to considering only the bald statements of witnesses. In other words, you are not limited solely to what you see and hear. You are permitted to draw reasonable inferences based on your experience if reason and common sense lead you to draw particular conclusions from the evidence.

INSTRUCTION NO. 3

You may use the notes taken by you during the trial. Remember, however, that notes are not evidence. If your memory should differ from your notes or the notes of other jurors, then you should rely on your memory.

INSTRUCTION NO. 4

At times during trial I ruled on the attorneys' objections to admitting certain items into evidence. Questions relating to the admissibility of evidence are solely questions of law for me. You must not concern yourselves with the reasons for my rulings, and do not draw any inferences from my rulings. Consider only the evidence admitted.

INSTRUCTION NO. 5

Some evidence is admitted for a limited purpose only. When I have instructed you that particular evidence is admitted for a limited purpose, you must consider that evidence only for that purpose and for no other.

INSTRUCTION NO. 6

Counsel's statements, arguments, and remarks are intended to help you understand the evidence and apply the law, but they are not evidence. You should disregard any such comment that has no basis in the evidence.

INSTRUCTION NO. 7

You must weigh and consider the evidence without favoritism for or prejudice against either party. Do not be influenced by anything not within the issues stated in my instructions. Sympathy should not affect your deliberations.

INSTRUCTION NO. 8

The parties to this lawsuit are corporations. This should make no difference to you. You must decide this case as if it were between individuals. All persons, including corporations, stand equal before the law, and are to be dealt with as equals in a court of justice.

A corporation may act only through people such as its agents or employees. In general, any agents or employees of a corporation may bind the corporation by their acts and by statements made while acting within the scope of their duties as employees of the corporation.

INSTRUCTION NO. 9

Some of the exhibits contain redactions. Portions of those exhibits have been redacted either because I have excluded the redacted portions from the evidence or because the parties have agreed that the redacted portions should not be admitted. You should disregard any redactions just as you would disregard any other evidence that I have excluded from the record.

INSTRUCTION NO. 10

During this trial, evidence was presented to you in the form of video depositions.

A deposition is the sworn testimony of a witness taken before trial. Deposition testimony is entitled to the same consideration and is to be judged, insofar as possible, in the same way as if the witness testified in court.

INSTRUCTION NO. 11

I have not intended in anything that I have said or done – not in these instructions, in any ruling, or in any action or remark I may have made during trial – to suggest how I would resolve any of the questions entrusted to you, the jury, in this case.

INSTRUCTION NO. 12

I will now review for you the parties in this action and their respective positions that you will have to consider in reaching your verdict.

As you know, this is a patent case. It involves U.S. Patent Numbers 6,343,084; 6,633,561; 6,463,052; 6,473,429; and 6,298,064. Because patents are often referred to by their last three digits, the patents in this case will be referred to as the '084 Patent; the '561 Patent; the '052 Patent; the '429 Patent; and the '064 Patent.

The plaintiff in this case is Sprint Communications Company, L.P., which I will refer to as "Sprint". The defendants are Time Warner Cable Inc., Time Warner Cable LLC, Time Warner Entertainment Company, L.P., Time Warner Entertainment-Advance/Newhouse Partnership, TWC Communications, LLC, and Time Warner Cable Information Services (Kansas), LLC. I will refer to defendants collectively as "Time Warner Cable". Sprint contends that Time Warner Cable infringed certain claims of these patents by making, selling, offering to sale, and/or using digital voice telephone services. The following patent claims are at issue in this case:

'084 Patent – Claims 1 and 7;

'561 Patent – Claims 1, 3, 15, 23, 24, 26, and 38;

'052 Patent – Claims 1, 3, 4, and 5;

'429 Patent – Claims 1, 5, and 7; and

'064 Patent – Claims 1, 3, and 26.

Sprint also contends that Time Warner Cable's alleged infringement of the asserted patent claims was willful. Sprint contends that it is entitled to damages caused by infringement in the form of a reasonable royalty based on revenue Time Warner Cable has received from its telephony services.

Time Warner Cable contends that it did not infringe the asserted patent claims and that in any case it did not willfully infringe the asserted patent claims. In addition, Time Warner Cable contends that the asserted patent claims are invalid for a number of reasons, including that the claimed invention was not new and that the claimed invention was not adequately supported by the patent. I will tell you more about the meaning of those defenses shortly. Furthermore, Time Warner Cable disputes Sprint's entitlement to and calculation of a reasonable royalty.

Your job is to decide whether Time Warner Cable has infringed the asserted patent claims and whether any of the asserted patent claims are invalid. If you decide that an asserted patent claim has been infringed and is not invalid, you will then need to decide any reasonable royalty to be awarded to Sprint to compensate it for the infringement. You will also need to make a finding as to whether any infringement was willful. If you decide that any infringement was willful, that decision should not affect any damages award that you make. I will take willfulness into account later.

INSTRUCTION NO. 13

Before trial, you saw the video about patents and the patent system. I will now give you more detailed instructions about the patent laws that specifically relate to this case.

A patent owner has the right to exclude others from making, using, offering for sale, or selling the invention covered by its patent claims during the life of the patent. Whoever makes, uses, offers to sell, or sells what is covered by the patent claims without the patent owner's permission is said to "infringe" the patent.

INSTRUCTION NO. 14

The claims of a patent are the numbered sentences at the end of the patent. The claims describe the invention made by the inventor and describe what the patent owner owns and what the patent owner may prevent others from doing. Claims may describe products, systems, or methods for making or using a product or system.

The figures and text in the rest of the patent provide a description and/or examples of the invention and provide a context for the claims, but it is the claims that define the breadth of the patent's coverage. Each claim is effectively treated as if it were a separate patent, and each claim may cover more or less than another claim. Therefore, what a patent covers depends, in turn, on what each claim covers.

You will first need to understand what each claim covers in order to decide whether or not there is infringement of the claim and to decide whether or not the claim is invalid. Each claim sets forth its requirements in a single sentence. The requirements of a claim are often referred to as "claim elements" or "claim limitations." When a product, process, or system meets all of the requirements of a claim, the claim is said to "cover" that thing, and that thing is said to "fall" within the scope of that claim. In other words, a claim covers a product, process, or system where each of the claim elements or limitations is present. If even one element or limitation is not present, then the claim is not infringed.

INSTRUCTION NO. 15

To decide whether or not an accused product, system, or method infringes a patent claim or whether or not a patent claim is valid, the first step is to understand the meaning of the words used in the patent claims.

It is my job as judge to determine what the patent claims mean and to instruct you about that meaning. You must accept the meanings I give you and use them when you decide whether or not the patent is infringed, and whether or not it is invalid.

Before I instruct you about the meaning of the words of the claims, I will explain to you the different types of claims that are at issue in this case. I will be giving you a list of the claims of the asserted patents at issue in this case as part of the verdict form when I conclude my instructions.

INSTRUCTION NO. 16

Patent claims may exist in two forms, referred to as independent claims and dependent claims. An independent claim does not refer to any other claim of the patent. Thus, it is not necessary to look at any other claim to determine what an independent claim covers.

The following claims at issue in this lawsuit are independent claims:

- '084 Patent – Claim 1;
- '561 Patent – Claims 1 and 24;
- '052 Patent – Claim 1;
- '429 Patent – Claim 1; and
- '064 Patent – Claim 1.

A dependent claim does not itself recite all of the requirements of the claim, but refers to another claim for some of its requirements. A dependent claim includes each of the limitations of the other claim or claims to which it refers, as well as the additional limitations recited in the dependent claim itself. Therefore, to determine what a dependent claim covers, it is necessary to look at both the dependent claim and the other claim to which it refers. A system that meets all the requirements of both the dependent claim and the claim to which it refers is covered by that dependent claim.

For example, Claim 7 of the '084 Patent is a dependent claim. It refers to Claim 1 of the '084 Patent. To determine what dependent Claim 7 of the '084 Patent covers, the words of that claim and the words of Claim 1 of the '084 Patent must be read together.

The following claims at issue in this lawsuit are dependent claims:

'084 Patent – Claim 7;

'561 Patent – Claims 3, 15, 23, 26, and 38;

'052 Patent – Claims 3, 4, and 5;

'429 Patent – Claims 5 and 7; and

'064 Patent – Claims 3 and 26.

INSTRUCTION 17

I have now instructed you as to the types of claims at issue in this case. I will next define the meaning of the words used in the patent claims at issue. You must rely exclusively on the definitions I provide to you in your consideration of infringement and invalidity issues.

You should give the rest of the words in the claims their ordinary meaning in the context of the patent specification and prosecution history.

The '084 Patent

In the '084 Patent, the following phrases have the following meanings:

- (1) “routing” in Claim 1 means *directing through a communication system by a selected route or in a specific direction*;
 - (2) “interworking unit” in Claim 1 means *ATM interworking multiplexer*;
 - (3) “identifier” in Claim 1 means *data for routing information in a packet network*;
- and
- (4) “DS0 connection” in Claim 7 means *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*.

The '561 Patent

In the '561 Patent, the following phrases have the following meanings:

- (1) “route” in Claims 1 and 24 means *direct through a communication system by a selected route or in a specific direction*;

(2) “signaling message” in Claims 1 and 24 means *a message used to set up or tear down a call*;

(3) “generating a . . . message” in Claims 1 and 24 means *assembling information to create a message*;

(4) “processing . . . to select” in Claim 1 means *processing . . . to participate in the selecting*;

(5) “a network code that identifies a network element to provide egress from the packet communication system for the user communication” in Claim 1 means *a code identifying a network element which network element provides an exit from a packet communication system*;

(6) “communication switches” in Claims 23 and 38 means *devices that set up calls and relay voice and/or data information from one connection to another*; and

(7) “a network code that identifies a network element to provide egress for the user communication from the packet communication system” in Claim 24 means *a code identifying a network element which network element provides an exit from a packet communication system*.

The '052 Patent

In the '052 Patent, the following phrases have the following meanings:

(1) “processing . . . to select” in Claim 1 means *processing . . . to participate in the selecting*;

(2) “a network code that identifies a network element to provide egress for the user communication from the packet communication system” in Claim 1 means *a code identifying a network element which network element provides an exit from a packet communication system*; and

(3) “DS0 connection” in Claim 3 means *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*.

The '429 Patent

In the '429 Patent, the following phrases have the following meanings:

(1) “processing . . . to select” in Claim 1 means *processing . . . to participate in the selecting*;

(2) “interworking unit” in Claim 1 means *ATM interworking multiplexer*;

(3) “identifier” in Claim 1 means *data for routing information in a packet network*;

(4) “generating a . . . message” in Claim 1 means *assembling information to create a message*;

(5) “DS0 connection” in Claim 1 means *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*; and

(6) “telecommunication switches” in Claim 5 means *devices that set up calls and relay voice and/or data information from once connection to another*.

The '064 Patent

In the '064 Patent, the following phrases have the following meanings:

- (1) “processing . . . to select” in Claim 1 means *processing . . . to participate in the selecting*;
- (2) “interworking unit” in Claim 1 means *ATM interworking multiplexer*;
- (3) “generating a . . . message” in Claim 1 means *assembling information to create a message*; and
- (4) “DS0 connection” in Claim 1 means *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*.

INSTRUCTION NO. 18

In this case, there are two types of infringement you must consider: (1) “literal infringement” and (2) “infringement under the doctrine of equivalents.”

In order to prove infringement by literal infringement, Sprint must prove by a preponderance of the evidence, i.e., that it is more likely than not, that Time Warner Cable made, used, sold, offered for sale within the United States, or imported into the United States, a product, system, or method that meets all of the requirements of a claim and did so without the permission of Sprint during the time the asserted patents were in force. You must compare the system with each and every one of the limitations of a claim to determine whether all of the limitations of that claim are met. For literal infringement, a claim’s limitation is only met if it is performed by the accused system exactly as it is recited in the claim. If the accused system omits even a single limitation recited in an asserted claim, then you must find that Time Warner Cable has not infringed that particular claim.

INSTRUCTION NO. 19

If a company makes, uses, sells, offers to sell within the United States, or imports into the United States, a product, system, or method that does not meet all of the requirements of a claim and thus does not literally infringe that claim, there can still be infringement if that product, system, or method satisfies that claim “under the doctrine of equivalents.”

Sprint relies on the doctrine of equivalents with respect to one element—the “interworking unit”—found in Claim 1 of the ’084 Patent, Claim 1 of the ’429 Patent, and Claim 1 of the ’064 Patent.

Under the doctrine of equivalents, an accused product, system, or method infringes a patent claim if the product, system, or method contains elements or performs steps corresponding to each and every requirement of the claim, and each requirement is equivalent to (even though not literally met by) the accused product, system, or method. You may find that an element or step is equivalent to a requirement of a claim that is not met literally if a person having ordinary skill in the field of technology of the patent would have considered the differences between them to be “insubstantial” or would have found that the structure or action: (1) performs substantially the same function and (2) works in substantially the same way (3) to achieve substantially the same result as the requirement of the claim.

The known interchangeability of substitutes for an element of a patent claim also is a factor that bears upon whether an accused structure or action is substantially the same as

the claimed structure or action. In order for the structure or action to be considered interchangeable, the structure or action must have been known at the time of the alleged infringement to a person having ordinary skill in the field of technology of the patent. The proper time for evaluating equivalency—and thus for evaluating knowledge of interchangeability between elements—is at the time of infringement, not at the time the patent was issued or some other time.

In order to prove infringement by “equivalents,” Sprint must prove the equivalency of the structure or actions to a claim element by a preponderance of the evidence.

INSTRUCTION NO. 20

The beginning portion, or preamble, of the claims of the asserted patents uses the word “comprising”. “Comprising” has a special meaning in patent law, and it means “including” or “containing”. A claim that uses the word “comprising” or “comprises” is not limited to products, systems, or methods having only the limitations that are recited in the claim, but also covers products, systems, or methods that add additional elements or steps.

All of the asserted claims in this case use the “comprising” language. Thus, if you find that the accused product, system, or method contains each limitation of an asserted claim, then that claim is infringed even if the accused product, system, or method contains additional features not found in the claim.

INSTRUCTION NO. 21

In order to prove infringement, Sprint need not show that Time Warner Cable knew that it was infringing a patent. A party may be found to have infringed a patent even if that party believed in good faith that it was not infringing any patent, and even if that party did not know of the patent. A party may also be found to have infringed a patent even if that party believed in good faith that the patent was invalid.

In addition, the fact that Time Warner Cable may have purchased components for its system from other companies does not mean that its system does not infringe the asserted patent claims. Similarly, the fact that another company may have independently developed the technology used in the accused system does not mean that the accused system does not infringe the asserted patent claims. Moreover, even if Time Warner Cable's accused products, systems, and methods represented an improvement of the inventions described in the asserted patent claims, that fact does not mean that the accused system does not infringe the asserted patent claims. The test for infringement remains the same regardless of where Time Warner Cable obtained the components for its products or systems and regardless of whether Time Warner Cable improved on the patented invention.

INSTRUCTION NO. 22

Taking each of the asserted claims of the asserted patents separately, if you find that Sprint has proved by the preponderance of the evidence that each and every limitation of the claim is present, either literally or under the doctrine of equivalents, in the accused product, system, or method, then you must find that Time Warner Cable infringes that claim.

In reaching your decision on infringement, keep in mind that only the claims of a patent can be infringed, and that infringement is assessed on a claim-by-claim basis. You must compare the asserted patent claims to the accused system to determine whether or not there is infringement. The accused system should be compared only to the invention set forth in the patent claims.

You must determine, separately for each asserted claim, whether or not there is infringement, based on my instructions about the meaning and scope of the claims, the legal requirements for infringement, and the evidence presented to you by the parties. There is one exception to this rule. My instructions on infringement so far have related to independent claims. As I told you, the asserted patents also contain dependent claims. A dependent claim includes each of the limitations of the independent claim to which it refers, plus the additional elements listed in the dependent claim itself.

If you find that a claim on which other claims depend is not infringed, there cannot be infringement of any dependent claim that refers directly or indirectly to that independent claim. On the other hand, if you find that an independent claim has been

infringed, you must still decide, separately, whether the accused system meets additional limitations of any claims that depend from the independent claim, thus, whether those claims have also been infringed. A dependent claim includes all the limitations of any of the claims to which it refers, plus additional requirements of its own.

INSTRUCTION NO. 23

In this case, Sprint argues both that Time Warner Cable infringed and, further, that Time Warner Cable infringed willfully. If you decide that Time Warner Cable has infringed, you must then address the additional issue of whether or not this infringement was willful.

In order to prove willful infringement, Sprint must prove, by a preponderance of the evidence, that Time Warner Cable knew or believed, or it was so obvious that it should have known, that there was a high likelihood that it was infringing a valid patent. In making that determination, you should consider all facts relating to Time Warner Cable's knowledge at the time it performed acts of infringement.

With respect to this question of willfulness, you are instructed that, under the law, Time Warner Cable had no duty to obtain any opinions of counsel.

This issue of willfulness is not relevant to your initial determination of whether Sprint has shown infringement. Rather, your determination on the issue of willfulness will be used by the Court in making other rulings.

INSTRUCTION NO. 24

Up until now, my instructions have focused on the law you must apply to determine whether Time Warner Cable has infringed the asserted patent claims. We now turn to the next major issue in the case, which is the validity of the asserted patent claims. Time Warner Cable contends that the patent claims are invalid for three reasons.

First, Time Warner Cable contends that the patents do not satisfy the “written description” requirement. The invention claimed in a patent must be adequately described. In return for the right to exclude others from making, using, selling, or offering for sale the claimed invention, the patent owner must provide the public with a complete description in the patent of the invention.

Second, Time Warner Cable contends that the claimed inventions are not new and thus that the patent claims are invalid as “anticipated”. For a patent claim to be valid, the invention claimed in the patent must be new. A patent cannot legally take away the right to use an identical combination of parts or elements which was already known before the invention was made.

Third, Time Warner Cable contends that the patent claims are invalid as “obvious”.

Because each claim of the asserted patents is presumed to be valid, Time Warner Cable must prove that a patent claim is invalid by clear and convincing evidence.

INSTRUCTION NO. 25

Time Warner Cable contends that the patents at issue in this case are invalid because they do not satisfy the written description requirement. A patent must contain a written description of the system or method claimed in the patent. In order to satisfy the written description requirement, the patent specification must describe each and every limitation of a patent claim, although the exact words found in the claim need not be used.

The written description requirement is satisfied if a person of ordinary skill in the field, reading the patent application as originally filed, would recognize that the patent application described the invention as finally claimed in the patent.

The written description requirement may be satisfied by any combination of the words, structures, figures, diagrams, formulas, etc., contained in the patent application. The full scope of a claim or any particular requirement in a claim need not be expressly disclosed in the original patent application if a person having ordinary skill in the field of technology of the patent at the time of filing would have understood that the full scope or missing requirement is in the written description in the patent application. The specification need not describe in detail all possible examples to satisfy the written description requirement.

Time Warner Cable contends that each of the asserted patent claims is invalid for lack of an adequate written description of the claimed invention. If you find that Time Warner Cable has proved by clear and convincing evidence that the asserted patent does

not contain a written description of the invention covered by a particular claim, then you must find that claim to be invalid.

INSTRUCTION NO. 26

For its second invalidity contention, Time Warner Cable contends that the patented inventions were not new and thus that the asserted patent claims are invalid as anticipated. That contention requires an understanding of the term “prior art”.

Prior art includes references, such as publications or patents, that disclose the claimed invention or elements of the claimed invention. For the purpose of this case, to be prior art, the reference must have been published or patented before the date of the claimed invention, which here is deemed to be the date of the filing of the particular Sprint patent at issue.

For a patent claim to be invalid because it is not new (and thus is anticipated), Time Warner Cable must show by clear and convincing evidence that all of the requirements of that claim were described in a single previous printed publication or patent. We call such things “anticipating prior art.” I will instruct you further in the following instructions concerning the particular prior art asserted by Time Warner Cable in this case.

To anticipate the invention, the prior art does not have to use the same words as the claim, but all of the requirements of the claim must have been disclosed in a single, previous printed publication or patent, either stated expressly or implied to a person having ordinary skill in the art in the technology of the invention, so that looking at that single reference, that person could make and use the claimed invention.

In deciding whether or not a single item of prior art anticipates a patent claim, you should consider that which is expressly stated or present in the item of prior art, and also that which is inherently present. Something is “inherent” in an item of prior art if it is necessarily present in that piece of prior art or always results from the practice of the prior art, and if a skilled person would understand that to be the case. It is not required, however, that persons of ordinary skill actually recognize or appreciate the inherent disclosure at the time the prior art was first known. Thus, the prior use of the patented invention that was unrecognized and unappreciated can still be an invalidating anticipation, provided the allegedly inherent feature was necessarily present in the reference. If Time Warner Cable asserts inherency, it must prove that by clear and convincing evidence.

In addition, additional references may be considered when they are used to explain, but not expand, the meaning of a particular prior art reference. Thus, although references cannot be combined for purposes of anticipation, additional references may be used to interpret the allegedly anticipating reference and shed light on what it would have meant to those skilled in the art at the time of the invention. However, such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.

INSTRUCTION NO. 27

In order for someone to be entitled to a patent, the invention must actually be “new” and not be anticipated. In general, inventions are new when the identical product or process has not been made, used, or disclosed before. Anticipation must be determined on a claim-by-claim basis.

Time Warner Cable contends that certain of the asserted claims are invalid because the claimed inventions are anticipated by prior art, namely, Larry Schessel’s European patent application. Time Warner Cable must convince you of this by clear and convincing evidence, that is, that the evidence highly probably demonstrates that the claim or claims are invalid.

To show that a Sprint patent claim is anticipated, Time Warner Cable must show that that invention was patented or described in a printed publication in this or a foreign country, before the filing date of the patent for that claim. An invention is considered to have been patented by another if, to a person having ordinary skill in the technology, the other patent describes the same invention claimed by Sprint. A description is considered a “printed publication” only if it was publicly accessible.

INSTRUCTION NO. 28

For its third invalidity contention, Time Warner Cable contends that the asserted patent claims are invalid as obvious.

Even though an invention may not have been identically disclosed or described before it was made by an inventor, in order to be patentable, the invention must also not have been obvious to a person of ordinary skill in the field of technology of the patent at the time the invention was made.

Time Warner Cable may establish that a patent claim is invalid by showing, by clear and convincing evidence, that the claimed invention would have been obvious to persons having ordinary skill in the art at the time the invention was made in the field of telephony systems. Obviousness may be shown by considering more than one item of prior art. In this case, Time Warner Cable asserts that the asserted claims of Sprint's patents are obvious in light of two pieces of prior art: Larry Schessel's European patent application and the 1991 Telcom Report.

In determining whether a claimed invention is obvious, you must consider the level of ordinary skill in the field of telephony systems that someone would have had at the time the invention was made, the scope and content of the prior art, and any differences between the prior art and the claimed invention.

Keep in mind that the existence of each and every element of the claimed invention in the prior art does not necessarily prove obviousness. Most, if not all, inventions rely on building blocks of prior art. In considering whether a claimed invention is obvious, you may

but are not required to find obviousness if you find that at the time of the claimed invention there was a reason that would have prompted a person having ordinary skill in the field of telephony systems to combine the known elements in a way the claimed invention does, taking into account such factors as (1) whether the claimed invention was merely the predictable result of using prior art elements according to their known functions; (2) whether the claimed invention provides an obvious solution to a known problem in the relevant field; (3) whether the prior art teaches or suggests the desirability of combining elements claimed in the invention; (4) whether the prior art teaches away from combining elements in the claimed invention; (5) whether it would have been obvious to try the combinations of elements, such as when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions; and (6) whether the change resulted more from design incentives or other market forces. To find it rendered the invention obvious, you must find that the prior art provided a reasonable expectation of success. Obvious to try is not sufficient in unpredictable technologies.

In determining whether the claimed invention was obvious, consider each claim separately. Do not use hindsight, that is, consider only what was known at the time of the invention.

In making these assessments, you should take into account any objective evidence (sometimes called “secondary considerations”) that may shed light on the obviousness or not of the claimed invention, such as:

- a. Whether the invention was commercially successful as a result of the merits

of the claimed invention (rather than the result of design needs or market-pressure advertising or similar activities);

- b. Whether the invention satisfied a long-felt need;
- c. Whether others had tried and failed to make the invention;
- d. Whether others invented the invention at roughly the same time;
- e. Whether others copied the invention;
- f. Whether there were changes or related technologies or market needs

contemporaneous with the invention;

- g. Whether the invention achieved unexpected results;
- h. Whether others in the field praised the invention;
- i. Whether persons having ordinary skill in the art of the invention expressed

surprise or disbelief regarding the invention;

- j. Whether others sought or obtained rights to the patent from the patent holder;

and

- k. Whether the inventor proceeded contrary to accepted wisdom in the field.

In deciding what the level of ordinary skill in the field of telephony systems is, you should consider all the evidence introduced at trial, including but not limited to: (1) the levels of education and experience of the inventor and other persons actively working in the field; (2) the types of problems encountered in the field; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; and (5) the sophistication of the technology.

INSTRUCTION NO. 29

Where the party challenging the validity of the patent is relying on prior art that was not considered by the United States Patent and Trademark Office (PTO) during examination, you may consider whether that prior art is significantly different and more relevant than the prior art that the PTO did consider. If you decide that the prior art was different and more relevant than the information considered by the PTO, you may weigh that prior art more heavily when considering whether the challenger has carried its clear-and-convincing burden of proving invalidity.

INSTRUCTION NO. 30

You must evaluate the invalidity of each asserted claim separately. Even if an independent claim is invalid as anticipated or obvious, this does not mean that the dependent claims that depend from it are automatically invalid for that reason. Rather, you must consider the validity of each claim, separately. You must decide this issue of validity on a claim-by-claim basis. However, if you find that a dependent claim is invalid as anticipated or obvious, then you must find that the independent claim is also invalid for that same reason.

INSTRUCTION NO. 31

I have now instructed you as to the law governing Sprint's infringement contentions and Time Warner Cable's invalidity contentions. If you find that the accused system infringes any valid patent claim, you must determine the amount of damages to be awarded to Sprint for infringement. If you find that Time Warner Cable has not infringed any valid claim of the patents, then Sprint is not entitled to any damages, and you should not make any findings about damages.

The damages you award must be adequate to compensate Sprint for Time Warner Cable's infringement. Such damages are not meant to punish the infringer. You must be careful to ensure that the damages award is no more or no less than the value of the patented invention.

Sprint has the burden of proving damages by a preponderance of the evidence. In other words, you should award only those damages that Sprint establishes that it more likely than not suffered. While Sprint is not required to prove the amount of its damages with mathematical precision, it must prove them with reasonable certainty. You may not award damages that are speculative, damages that are only possible, or damages that are based on guesswork.

INSTRUCTION NO. 32

If you find that Sprint has established infringement of any valid claim, Sprint is entitled to at least a reasonable royalty to compensate it for that infringement. I will now discuss the meaning of “reasonable royalty” in greater detail.

A royalty is a payment made to a patent holder (in this case, Sprint) in exchange for rights to make, use, or sell the claimed invention. A reasonable royalty is the amount of royalty payment that a patent holder and the alleged infringer (in this case, Time Warner Cable) would have agreed to in a hypothetical negotiation taking place at a time prior to when the infringing use first began. In considering this hypothetical negotiation, you should focus on what the expectations of Sprint and Time Warner Cable would have been had they entered into an agreement at that time, and had they acted reasonably in their negotiations. In determining this, you must assume that both parties believed the asserted patents were valid and infringed and that both parties were willing to enter into an agreement. The reasonable royalty you determine must be a royalty that would have resulted from the hypothetical negotiation, and not simply a royalty either party would have preferred. Evidence of things that happened after the infringement first began can be considered in evaluating the reasonable royalty only to the extent that the evidence aids in assessing what royalty would have resulted from a hypothetical negotiation.

The reasonable royalty award must be based on the incremental value that the patented invention adds to the end product. When the infringing products have both patented and unpatented features, measuring this value requires a determination of the

value added by the patented features.

In determining a reasonable royalty, you may also consider evidence concerning the availability and cost of non-infringing alternatives to the patented invention. A non-infringing alternative must be an acceptable product that is licensed under the patent or that does not infringe the patent.

I will list for you a number of factors you may consider. This is not every possible factor, but it will give you an idea of the kinds of things to consider in setting a reasonable royalty.

1. Whether Sprint had established a royalty for the asserted patents, for example by granting other licenses to the asserted patents.
2. Royalties or rates paid by Time Warner Cable or others for the use of other patents comparable to the asserted patents.
3. The nature and the scope of the license, as exclusive or nonexclusive, or as restricted or nonrestricted in terms of territory or with respect to whom the manufactured product may be sold.
4. Whether Sprint had an established policy of licensing or not licensing the asserted patents.
5. The commercial relationship between Sprint and Time Warner Cable, such as whether they are competitors.
6. Whether being able to use the patented invention helps in making sales of

other products or services.

7. The duration of the asserted patents and the term of the license.

8. The profitability of the product made using the patent, and whether or not that product is commercially successful or popular.

9. The advantages and benefits of using the patented invention over products or methods not claimed in the asserted patents.

10. The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by Sprint, and the benefits to those who have used the invention.

11. The extent to which Time Warner Cable has made use of the invention and the value of that use to Time Warner Cable.

12. Whether there is a portion of the profit or selling price that is customarily paid for use of the patented invention or comparable inventions.

13. The portion of profits due to the patented invention, as distinguished from the portion due to other factors, such as unpatented elements, manufacturing processes, business risks, or significant features or improvements added by Time Warner Cable.

14. Expert testimony concerning a reasonable royalty.

15. Any other economic factor that a normally prudent business person would, under similar circumstances, take into consideration in negotiating a license for use of the asserted patents.

Finally, even though the relevant date for the hypothetical license negotiation is

just before the infringement began, evidence relating to events after that time may be relevant and inform your determination of the result of that hypothetical negotiation, including with respect to the listed factors.

INSTRUCTION NO. 33

You should not consider the fact that I have instructed you about the proper measure of damages as an indication of my views regarding whether either party is entitled to your verdict in this case. I am giving you instructions about damages solely to provide you with guidance if you should find in favor of Sprint on its infringement contentions.

INSTRUCTION NO. 34

You have heard evidence concerning the verdict rendered in 2007 in Sprint's lawsuit against Vonage. You may consider that verdict only for the limited purposes of (1) evaluating the testimony of Dr. Rao, who relied on that verdict in formulating his reasonable royalty opinions; and (2) determining Time Warner Cable's knowledge and belief as they relate to the issue of willfulness. Thus, you should not consider that verdict in deciding the issues of infringement or invalidity of the patents.

You have also heard evidence concerning the 2003 and 2006 agreements between Sprint and Time Warner Cable. You may consider those agreements for the purpose of determining whether or not any infringement by Time Warner Cable was willful (assuming you first find infringement) and in connection with the parties' commercial relationship. Thus, you should not consider those agreements in deciding the issues of infringement or invalidity of the patents.

INSTRUCTION NO. 35

You are to determine the weight and credit to give each witness's testimony. You have a right to use common knowledge and experience in evaluating witnesses' testimony.

INSTRUCTION NO. 36

A witness's credibility may be attacked by evidence that on some former occasion he or she made a statement, acted in a manner, or gave deposition testimony that was inconsistent with his or her testimony in this case.

You may consider such evidence only insofar as it may impact the witness's credibility – that is, only in deciding the weight and credit to be given to that witness's testimony.

INSTRUCTION NO. 37

Certain testimony has been given in this case by experts – that is, by persons who are specially qualified by experience or training and possess knowledge on matters not common to mankind in general. The law permits such persons to give their opinions regarding such matters, although you are not required to accept such opinions. The testimony of experts is to be considered like any other testimony and is to be tried by the same tests, and should receive such weight and credit as you deem it entitled to, when viewed in connection with all the other facts and circumstances, and its weight and value are questions for you.

INSTRUCTION NO. 38

Burden of proof means burden of persuasion. In a patent case such as this, there are two different standards for the burdens of proof.

One standard is called “preponderance of the evidence”. This standard of proof requires that, in order for a party to satisfy its burden of proof, you must be persuaded that the party’s assertion is more probably true than not true.

The second standard of proof is a higher one. It is called “clear and convincing evidence”. Clear and convincing evidence is evidence that produces in your mind a clear and abiding conviction that the truth of a contention is highly probable.

You must decide essentially four main issues in this case. The burden of proof on those issues is as follows:

(1) *Infringement*. Sprint has the burden of proving that Time Warner Cable’s accused products, systems, and methods infringed the asserted patent claims. Sprint must prove these claims by a preponderance of the evidence.

(2) *Invalidity*. Time Warner Cable has the burden of proving that the asserted patent claims are invalid. Time Warner Cable must prove its assertions of invalidity by clear and convincing evidence.

(3) *Damages*. Sprint has the burden of proving damages by a preponderance of the evidence. If you find that Sprint has met its burden of proof on the issue of infringement for any one of the asserted patent claims, and you also find that Time Warner Cable has not met its burden of proof on the issue of invalidity as to that

particular claim, you must then determine the amount, if any, to which Sprint has proven it is entitled, by a preponderance of the evidence, as damages to compensate for the infringement.

(4) *Willfulness*. If you find that Sprint has met its burden of proof on the issue of infringement for any one of the asserted patent claims, and you also find that Time Warner Cable has not met its burden of proof on the issue of invalidity as to that particular claim, you must then determine whether Sprint has proven, by a preponderance of the evidence, that Time Warner Cable's infringement was willful.

In determining whether a party has met its burden of proof, consider all of the evidence, whether produced by Sprint or by Time Warner Cable. The weight of the evidence on any issue is not determined by the number of witnesses, but rather by how reasonable, persuasive, and satisfying the evidence is to you.

INSTRUCTION NO. 39

There are two types of evidence. One is direct evidence, such as the testimony of someone who claims to have seen or heard an event. The other is circumstantial evidence, such as evidence from which you can reasonably draw inferences about whether an event did or did not occur.

The law does not distinguish between direct and circumstantial evidence, but rather simply requires the jury to find the facts in accordance with appropriate burden of proof based on all the evidence in the case, both direct and circumstantial.

INSTRUCTION NO. 40

You are the exclusive judges of the facts proved, the weight of the evidence, and the credibility of the witnesses. In determining the issues in this case you will, of course, rely upon the evidence you heard in the courtroom and will not be swayed by sympathy, passion, or prejudice. You may and should, however, rely on the general information you possess as to matters of common knowledge, observation, and life experience. In weighing the testimony of witnesses, you may consider their appearance, demeanor, means of knowledge, apparent intelligence or ignorance, whether or not they have an interest in the outcome of the case, and all other facts and circumstances evident at trial that will help you determine the truth.

If you believe that any witness testified falsely about any material fact, you may disregard all or any part of his or her testimony, but you are not required to believe or disbelieve the testimony of any witness. You should reconcile any conflicting testimony as truthful if reasonably possible, but if doing so is not possible then use your best judgment in determining what testimony to believe.

When weighing conflicting testimony, you should consider whether the discrepancy has to do with a material fact or with an unimportant detail. You should keep in mind that making an innocent mistake in memory – like being unable to remember – is not uncommon.

INSTRUCTION NO. 41

Your verdict must represent the considered judgment of each juror. In order to return a verdict, each juror must agree upon the verdict and your verdict must be unanimous.

If you do not reach a verdict, the parties may be put to the expense of another trial and will once again have to endure the mental and emotional strain of a trial. If the case is retried, a future jury must be selected in the same manner and from the same source as you have been chosen, and there is no reason to believe that the case would ever be submitted to a more competent jury. There is no reason to believe that there will be more or clearer evidence produced at a future trial.

As jurors you have a duty to consult with one another and to deliberate with a view to reaching an agreement, if you can do so without violence to individual judgment. Each of you must decide the case for yourself, but do so only after considering the evidence impartially with your fellow jurors. In the course of your deliberations, do not hesitate to re-examine your own views and change your opinion if you become convinced that it is wrong. But do not surrender your honest conviction as to the weight or effect of the evidence solely because of the opinion of your fellow jurors, or for the mere purpose of returning a verdict.

You are not partisans. You are judges – judges of the facts. Your sole interest is to ascertain the truth from the evidence in the case.

INSTRUCTION NO. 42

There is a copy of the Verdict Form attached to your copy of these instructions.

You will receive the original of this Verdict Form along with the official set of Jury Instructions signed by me when you begin your deliberations. Counsel may refer to the Verdict Form during their closing arguments, and you may use your copies to follow the arguments or to make notes.

I am not going to read the Verdict Form to you. However, by way of explanation, the Verdict Form asks you to answer questions concerning infringement and invalidity for each claim of each patent at issue in this case. If you find, with respect to any of those claims, that Time Warner Cable infringed and that the claim is not invalid, then the Verdict Form asks you to answer questions concerning damages and willfulness.

Each question must be answered in accordance with the burden of proof specified in that question. Each answer must be agreed by you unanimously.

INSTRUCTION NO. 43

In considering the evidence in this case, you should use your good sense, consider the evidence only for those purposes for which it was admitted, and give the evidence a reasonable and fair construction in light of your common knowledge of the natural tendencies and inclinations of human beings.

You are to perform your duty without bias as to any party or person. The law does not permit jurors to be governed by sympathy, prejudice, or public opinion.

INSTRUCTION NO. 44

When you retire to the jury room, you should first select one of you as the foreperson to preside over your deliberations, speak for the jury when in court, and sign the verdict.

Your verdict must be founded entirely upon the evidence admitted and the law that I have given to you in these instructions.

Your verdict must be unanimous. Once you reach a unanimous verdict, the foreperson should fill in, date, and sign the verdict form. The foreperson should then notify the bailiff, and your deliberations will be complete. The foreperson will carry the completed verdict into the courtroom and, after we have returned to the courtroom, hand it to the clerk when instructed to do so.

INSTRUCTION NO. 45

During your deliberations, you must not communicate with or provide any information to anyone by any means about this case. You may not use any electronic device or media, such as a telephone, cell phone, smart phone, iPhone, Blackberry, computer, the Internet, any Internet service, any text or instant messaging service, any Internet chat room, blog, or website such as Facebook, MySpace, LinkedIn, YouTube, Instagram, or Twitter, to communicate to anyone (or the public at large) any information about this case or to conduct any research about this case until I accept your verdict. In other words, you cannot talk to anyone on the phone, correspond with anyone, or electronically communicate with anyone about this case. You can only discuss the case in the jury room with your fellow jurors during deliberations. You must inform the Court immediately if you become aware of another juror's violation of these instructions.

You may not use these electronic means to investigate or communicate about the case because it is important that you decide this case based solely on the evidence presented in this courtroom. Information on the Internet or available through social media might be wrong, incomplete, or inaccurate. You are only permitted to discuss the case with your fellow jurors during deliberations because they have seen and heard the same evidence you have. In our judicial system, it is important that you are not influenced by anything or anyone outside of this courtroom; if you were so influenced, your decision might be based on information known only by you and not your fellow jurors or the parties in the case, and that would unfairly and adversely impact the judicial process.

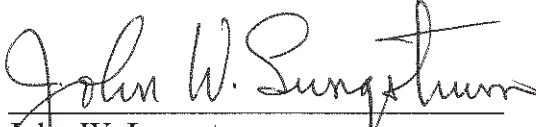
INSTRUCTION NO. 46

If it becomes necessary during your deliberations to communicate with me, please do so by giving a note to the bailiff who, in turn, will pass the note along to me. The note must be signed by your foreperson or by one or more of you. None of you should ever attempt to communicate with me about the merits of the case in any way other than by a signed writing. I will not communicate with any of you on any subject involving the merits of the case other than in writing, or orally here in open court.

You will note from the oath about to be taken by the bailiffs that they and all other persons are forbidden from communicating with any of you about any subject involving the merits of the case.

Bear in mind also that you are never to reveal to any person how the jury stands numerically or otherwise on the questions before you until after you have reached a unanimous verdict.

1 March 2017
Date



John W. Lungstrum
United States District Judge

EXHIBIT 22

UNITED STATES DISTRICT COURT
DISTRICT OF KANSASSPRINT COMMUNICATIONS
COMPANY, LP,

Docket No. 11-2686

Plaintiff,
v.Kansas City, Kansas
TIME WARNER CABLE, INC., Date:
ET AL.,

Volume 4 - AM Session

Defendants.

TRANSCRIPT OF JURY TRIAL
BEFORE THE HONORABLE JOHN W. LUNGSTRUM
SENIOR UNITED STATES DISTRICT COURT JUDGE

APPEARANCES:

For the plaintiff:

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Peter E. Strand
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Jordan T. Bergsten
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(Court called to order.)

THE COURT: All right. And if we are ready
to proceed, we'll bring in the jury.(The jury entered the courtroom, after which
the following proceedings were had.)THE COURT: Thank you. You may be seated.
Welcome back, members of the jury. Mr. Wicker, I'll
remind you, you remain under oath.

THE WITNESS: Thank you, Your Honor.

THE COURT: Counsel, you may resume your
examination.

MR. RECKERS: Thank you, Your Honor.

FURTHER REDIRECT EXAMINATION

BY MR. RECKERS:

Q. So, Dr. Wicker, when we broke yesterday, we had
just completed our analysis, our discussion of Claim 1
of the 052 patent; is that correct?

A. That's correct.

Q. And we had checked all the boxes indicating
infringement for that particular claim?A. That's correct. Including the topmost box. It
looks like that one's not checked.

Q. You got the clicker there. You can --

A. I'm sorry.

Q. -- give it a last click there.

APPEARANCES:

(continued)
Stephanie Grace
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Latham & Watkins, LLP
12670 High Bluff Drive
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I N D E X

Plaintiff's Witnesses: Page

STEPHEN B. WICKER, Ph.D

Further Redirect Examination By Mr. Reckers 631

So are you ready to move on to the next claim?

A. Yes, I am.

THE WITNESS: And if I may, may I approach
the screen, Your Honor.

THE COURT: You may.

THE WITNESS: Thank you, sir.

BY MR. RECKERS:

Q. So, Dr. Wicker, the next claim is Claim 3 of the
052 patent; is that correct?

A. Yes, it is.

Q. And that's another inbound claim?

A. Yes, that's right.

Q. And this is -- this is our first dependent claim;
correct?

A. That's right.

Q. Can you explain for the jury what a dependent
claim is?A. A dependent claim incorporates another claim.
This claim starts with the method of Claim 1. So it's
telling us at the outset all the steps in Claim 1 have
to be there. So the first requirement of Claim 3 is all
of Claim 1.Q. So why do you already have a checkmark in the
first box there?

A. Well, that was what we showed yesterday

Page 685

1 from the input of the switch to the output. Where do I
2 send it next. That's what tells it where to send it
3 next.

4 Q. Okay. So let's ask the same questions for IP.
5 How does a packetizer create an IP packet?

6 A. Okay. So with the IP packet we see the same as
7 with ATM. With ATM we took zeros and ones, put them in
8 the back of the truck and then addressed it.

9 With IP we see zeros and ones being put into the
10 back of the truck and then we address it. The address
11 in this case is called an IP address, an Internet
12 protocol address.

13 Q. What is an IP address?

14 A. An IP address is -- is a particular sequence. We
15 usually represent it in hexadecimal notation, but
16 basically -- or octal notation. It's an address that is
17 used by switches in a packet-switched network to map IP
18 packets from the input of a switch to the output of a
19 switch, to move it along towards its final destination.

20 Q. So let's address the question of routing. Do IP
21 and ATM route in different ways?

22 A. Do they route in different ways? If we look in
23 the details of IP and ATM, they do indeed. In other
24 words, they use different approaches to basically get
25 the packets from one end of the network to the other.

Page 687

1 table and the information that's in the header to
2 determine where to send those packets next.

3 Q. Dr. Wicker, are the differences in the IP and ATM
4 protocol meaningful in the context of Mr. Christie's
5 inventions?

6 A. The differences are insubstantial from the
7 standpoint of Mr. Christie's invention.

8 Q. Why is that?

9 A. Because what Mr. Christie was talking about was
10 going to a packet communication network and routing
11 voice traffic across that communication network to take
12 advantage of the efficiencies of packet-switching. He
13 didn't go into the details of his claims of how ATM
14 works. He simply said, I'm going to put header
15 information in and route it across my network.

16 Well, that's exactly what happens with IP as
17 well. So at the level of the claims, the differences
18 are insubstantial.

19 Q. Let's turn, if you will, Dr. Wicker, to the next
20 slide. And this is the claim term interworking unit;
21 correct?

22 A. That's correct.

23 Q. And this is the claim term we mentioned earlier
24 that there was an a judicial construction with an ATM
25 component; correct?

Page 686

1 Q. So how does an ATM network handle ATM packets?

2 A. Okay. So an ATM network, here we've got an
3 example of routing ATM packets. If we look at it at the
4 level called for by the patents, what we see is we have
5 a packetizer generating ATM packets. The ATM packets
6 reach a switch. The switch is going to look up the
7 information in the header. It's going to look up that
8 VPI/VCI and say, what's the next route to take. Where
9 do I map this at the output of my switch. The lookup
10 table tells it where to go, and it routes the packet
11 accordingly.

12 Q. So how are IP packets routed in an IP network?

13 A. We'll see when we look at it from the standpoint
14 of the level of the claims we've been discussing, it's
15 the same way.

16 Okay. So what we see is in routing IP packets,
17 we have an IP packetizer. We generate packets when they
18 reach a switch, the switch is going to go to a lookup
19 table. It's going to look up the information in the
20 header and say, where do I send it next, and then it
21 will act accordingly, according to what the lookup table
22 says.

23 So in both the IP case and the ATM case -- this
24 is ATM, this is IP -- what we'll see are these packets
25 coming into switches. The switches will use a lookup

Page 688

1 A. That's correct.

2 Q. I think we'll see that on -- well, not the next
3 slide. But let's go to the next slide. My question is
4 this: What type of equipment does Time Warner Cable use
5 for its interworking unit?

6 A. Okay. So the interworking unit, this would be
7 the media gateways that we've been talking about all
8 morning long, the MGXs. The particular media gateways
9 used in Time Warner Cable's VoIP network are made by
10 Cisco. There's Cisco MGX8880 media gateways, and they
11 look like that.

12 Q. And so for this claim term, there's a claim
13 construction of ATM interworking multiplexers; is that
14 correct?

15 A. That's correct.

16 Q. Is this the -- the definition of interworking
17 unit that you applied in your infringement analysis?

18 A. Yes, it is.

19 Q. Okay. So let's break that down a little bit.
20 What is a multiplexer?

21 A. Okay. A multiplexer is a device that takes
22 traffic from different destination -- from different
23 sources and brings it together into one flow or vice
24 versa. That would be demultiplexing, but we can have
25 single flows becoming multiple flows.

Page 689

1 Q. And is the Cisco MGX8880 a multiplexer?

2 A. Yes, it is.

3 Q. And so what is -- what does it mean to do -- to
4 be an ATM interworking multiplexer?

5 A. What that means is that in doing its
6 multiplexing, moving from one networking technology to
7 another, it's going to use ATM.

8 Q. Okay. And does Time Warner Cable use an ATM
9 interworking multiplexer in its accused systems?

10 A. Yes, it does.

11 Q. Okay. And does it do so literally? Is the
12 MGA8880 literally an ATM interworking multiplexer?

13 A. Yes. There is extensive evidence and testimony
14 that if you look into this box, you will find that ATM
15 cells are being used to route data across the backplane,
16 data and voice.

17 Q. What evidence did you rely on to determine that
18 the MG8880 is an ATM interworking multiplexer?

19 A. Okay. To begin with, I used the court's
20 construction. We've mentioned this interworking unit.
21 The court has said that when I see this in the claim
22 language, I'm to read ATM interworking multiplexer.

23 What I then did was I looked at a number of
24 documents to see whether or not the MGX8880 was, in
25 fact, an ATM interworking multiplexer. And what I found

Page 691

1 Trunking Gateway Functional Specification. Okay. The
2 trunking gateway, this is a media gateway. The trunking
3 refers to what happens on the PSTN side. So the
4 trunking gateway IP requirements include ATM-based
5 switching, ATM cell translation.

6 And let me put those pieces together. What it's
7 saying here is that we'll have ATM cell translation for
8 cell processing by the ATM based switching fabric. So
9 the switching fabric, once again, is that backplane.
10 It's what's doing the routing from the input to the
11 output.

12 Q. Okay. Did you also consider page 50 of PTX-65?

13 A. Yes, I did.

14 Q. And what's shown -- what's shown on this
15 particular figure?

16 A. Okay. So I want to know first that -- I've
17 highlighted this figure. Okay. So the yellow part's
18 not in the original figure, but everything else is.

19 And so what's being shown here is we have a PSTN
20 on one side and an IP network on the other. And here we
21 have several cards that are in the chassis -- I don't
22 think I used that word before -- that are within the
23 switch, within the MGX8880. The chassis is the big box.
24 Okay. And that big box has lots of cards that come in
25 and out. These are three of the cards.

Page 690

1 was this: This is a document, PTX-72. And what it says
2 is that, like the 8850 -- that's an earlier version of
3 the 8880 -- utilizes an ATM backplane. So what that's
4 telling me is the part of the interworking multiplexer
5 that moves data from an input to an output, that's using
6 ATM. It's an ATM backplane.

7 Q. Can you elaborate a bit on what a backplane is?

8 A. The backplane is sort of the highway within the
9 switch. So a switch is a device that has lots of input
10 traffic and lots of output traffic. So what has to
11 happen then is there has to be a mapping from an input
12 port to an output port for that switch to do its job.
13 And so for that to happen, most switches use what's
14 called a backplane. That's the communication from the
15 input ports to the output ports.

16 Well, this is more than just a switch. We're
17 also doing translation, interworking between networking
18 technologies. And what this is telling me is that
19 whatever is coming in or going out, when it's going
20 across the backplane, it's ATM.

21 Q. Dr. Wicker, did you also consider Plaintiff's
22 Exhibit 65 in your literal infringement analysis?

23 A. Yes, I did.

24 Q. In what way?

25 A. Okay. So this is PTX-65, and it's titled TWC's

Page 692

1 And so what we see is TDM voice coming in, and
2 then the document says we've got ATM in the middle.
3 Okay. That corresponds to what we just saw; namely,
4 that the backplane is an ATM backplane.

5 So the backplane is this PXM card -- or includes
6 the PXM card. So we've got ATM across the backplane,
7 and then we've got another card that's providing us with
8 Voice over IP traffic. So TDM coming in. ATM on the
9 backplane. And then Voice over IP coming out. And so
10 that's what's telling me this is an ATM interworking
11 multiplexer.

12 Q. If you go to the next slide, I think we have some
13 further graphics on that. So what is shown on this
14 further graphic as to Plaintiff's Exhibit 65?

15 A. Okay. This is just further explanation of what's
16 going on, and this is what I just showed you. We've got
17 synchronous DS0 voice. That's the PSTN voice. To cross
18 the backplane, it's been converted to asynchronous ATM
19 voice, and at the output of this interworking
20 multiplexer we have this asynchronous IP voice. So in
21 the middle, it's ATM. It's an interworking multiplexer
22 that's called for by the court.

23 Q. And, Dr. Wicker, in considering your opinions,
24 concerning the evidence as to literal infringement, did
25 you also consider the testimony of Cisco's corporate

Page 693

1 representative?

2 A. Yes, I did.

3 Q. And in what way?

4 A. Okay. This is Mr. Yildirim's testimony. And
5 just to remind you, he testified on a number of issues,
6 but he talked about how the Cisco MGX8880 works. And so
7 what I found in his testimony is he was asked, In
8 between the receipt of a TDM communication -- the voice
9 from the PSTN -- and the transmission of a packet
10 communication -- Voice over IP -- Cisco's media gateways
11 rely on an ATM switching fabric; correct?

12 Correct.

13 So without the ATM switching fabric, Cisco's
14 media gateways would not be able to convert TDM to IP?

15 Correct.

16 Q. Dr. Wicker, in your infringement analysis, did
17 you consider the fact that Time Warner Cable's MGX8880
18 do not actually output ATM cells?

19 A. Yes, I did.

20 Q. And what is the impact of that -- of that fact?

21 A. What I found was that it had no impact. It's an
22 ATM interworking multiplexer, but the claims don't call
23 for transition of ATM cells or packets out across the
24 network.

25 Q. And would the MG8880 be able to convert TDM to IP

Page 695

1 right, I'm happy to press forward.

2 THE WITNESS: I'm all right.

3 THE COURT: He looks like he's doing -- I
4 can't really see him. I hear him. It seems like he's
5 doing okay.

6 MR. RECKERS: Yes, sir.

7 THE COURT: All right.

8 BY MR. RECKERS:

9 Q. So I'd asked you if you performed some additional
10 analysis. Can you explain to the jury what additional
11 analysis you did in support of your infringement
12 position as to the ATM interworking multiplexer?

13 A. Okay. So this notion -- and I think you heard
14 about this very early in the case, the doctrine of
15 equivalents. It's basically requiring that I ask myself
16 the question, is the difference between what the claims
17 literally called for and what's being done by an accused
18 device insubstantially different. In other words, are
19 the differences that I see insubstantial as far as what
20 the claims are calling for. If they are, then we see
21 satisfaction of those claim elements under the doctrine
22 of equivalents. If I find that the differences are
23 substantial from the standpoint of the claims, then I'd
24 say, no, it's not satisfied under the doctrine of
25 equivalents.

Page 694

1 without ATM interworking?

2 A. No. You wouldn't -- let me go back a little bit.
3 You would not be able to get from here, the PSTN, to
4 here, the IP network, in the MGX8880 without doing this
5 conversion to ATM. If you didn't do that, you couldn't
6 get across the backplane. If you can't get across the
7 backplane, you can't get from the input to the output.

8 Q. So, Dr. Wicker, what is your opinion as to
9 whether or not in Time Warner's network, the 8880 media
10 gateway, literally meets the court's claim construction
11 of an ATM interworking multiplexer?

12 A. It is literally, as I've shown, an ATM
13 interworking multiplexer. It interworks ATM in its
14 multiplexing functionality.

15 Q. And, Dr. Wicker, did you perform additional
16 analysis for this particular claim element in support of
17 your infringement opinion?

18 A. Yes, I did.

19 MR. RECKERS: Your Honor, I know that we
20 have a 10:30 break. This would be a --

21 THE COURT: Well, 10:45 is usually --

22 MR. RECKERS: I apologize.

23 THE COURT: It's no problem. And if this is
24 a better time, that's fine. Whichever works for you.

25 MR. RECKERS: We can -- if Dr. Wicker's all

Page 696

1 Q. And why did you perform this additional analysis
2 for this claim element?

3 A. Well, basically it was done so that -- you know,
4 it was just another way of showing that we're doing
5 essentially the same thing. In other words, we've got
6 literal with ATM in the middle, and doctrine of
7 equivalents with simply to say, there's another way of
8 looking at it. It's saying here too we see that the
9 claims are practiced.

10 Q. Okay. And so getting more into the specifics of
11 your equivalents analysis, can you explain to the jury
12 what the factors are you considered when assessing the
13 presence of this claim element through the doctrine of
14 equivalents?

15 A. Okay. So there's basically two approaches to
16 determining whether or not the differences between
17 what's claimed and what you're analyzing are
18 insubstantial. One is to determine whether or not
19 there's known interchangeability. In other words, could
20 I have swapped IP for ATM or vice versa in the accused
21 system. Was it known that I could go from ATM to IP and
22 back for that matter.

23 Q. Known by whom?

24 A. Known by engineers at the time that infringement
25 began.

Page 697

1 Q. Okay. And --

2 A. Known by a person of skill -- excuse me --
3 according to the patent.

4 Q. Yes, sir. And then what is the function -- I'm
5 sorry. What is the second test that you -- that you
6 performed?

7 A. Okay. So the second test is called the
8 function-way-result test. Basically what this does is
9 it says, does the Cisco MGX8880 gateways perform
10 substantially the same function as the claimed ATM
11 interworking multiplexer, in substantially the same way,
12 to yield substantially the same result.

13 So it's another way of looking at things to say,
14 are these differences insubstantial or are they
15 substantial. Do we have infringement under the doctrine
16 of equivalents or not.

17 Q. Okay. So let's start with your known
18 interchangeability opinions. And my question is this:
19 At the time of infringement in this case, was there
20 known interchangeability between IP interworking and ATM
21 interworking?

22 A. Yes. Certainly were.

23 Q. And what evidence did you rely on as to that
24 particular factor?

25 A. Okay. Well, the first thing I did was I looked

Page 698

1 at the device itself. And I'm glad this is up again. I
2 mentioned this idea of a chassis. When you have various
3 kinds of communication systems, switches and various
4 other things, you'll often have a frame -- we call it
5 the chassis -- and that frame provides power. This one
6 happens to have some cooling. Things get hot. And then
7 it's got boards that we can pull in and out. So we can
8 swap in and swap out boards as needed to provide
9 whatever functionality we wish.

10 And so I looked at this switch, and I asked, were
11 IP and ATM interfaces interchangeable; and what I found
12 was, in fact, they are. And they were, going back quite
13 a ways.

14 Q. Okay. And can you explain to the jury when --
15 let me first ask this: How big of a device is this
16 MG8880?

17 A. Okay. So it's about that big (indicating).

18 Q. And can you point to the cards on the screen?

19 A. Yes. These are the cards here.

20 Q. And was the device made -- I'm sorry. Go ahead.

21 A. I was about to say, and you can think of each one
22 of these -- I'm trying to think of a good analogy --
23 it's almost like maybe a cookie tin or something. You
24 know, it's going to slide out like this. And when you
25 pull them out, what you'll see are all kinds of chips

Page 699

1 and wires. Maybe not so many wires, but lots of chips,
2 integrated circuits, various things that provide the
3 functionality for that particular card.

4 Cards also often have connectors. You can see a
5 connector here and here that provide outputs for, for
6 example, a packet network, packet-switched network.

7 Q. Is the MG8880 built for you to be able to change
8 the cards?

9 A. Yes. It's specifically designed for that because
10 that's basically -- it gives you the flexibility to
11 change your system as you need to. If all of this was
12 just built in and fixed in a way where you couldn't
13 remove it, your product wouldn't have flexibility. You
14 know, one group's needs would be different from another
15 group, but they'd all have to buy the same box. That's
16 not so good.

17 Q. So if I wanted to change my MG8880 from a device
18 that output IP packets to one that output ATM packets,
19 what would I do?

20 A. I would literally take one card out, put another
21 card in, and I would have to tell the system, I just
22 changed your cards, and I would be through.

23 Q. Was a device made for that swap?

24 A. It was exactly made for that swap.

25 Q. Okay. Did you rely on evidence from Cisco's

Page 700

1 designee Mr. Yildirim in support of your known
2 interchangeability opinion?

3 A. I did.

4 Q. So what testimony in particular?

5 A. So he was asked, So the MGX8880 is actually
6 designed to interwork both between IP and ATM?

7 And let me make sure I said that correctly.

8 So the MGX8880 is actually designed to interwork
9 between both IP and ATM?

10 And here's what he said: MGX8880 series box, you
11 know, from the day that it was envisioned and built,
12 thinking that it was going to be everything ATM.

13 So what he's telling me, in a person of skill, is
14 that, you know, originally they thought everything was
15 going to be ATM. And there's a long story behind that.
16 ATM was a very -- and is a good technology.

17 It was ATM interworking, you know, all the media
18 running through ATM. It was built that way. This box,
19 the MGX8880, was designed for ATM communication. But
20 the time frame that you're talking about, when 8880
21 built for Voice over IP in mind, and in that case, you
22 know, we optimized whatever we had to between TDM and
23 IP.

24 So what he's saying there is that he had a box
25 designed for ATM, and then they took that box and used

Page 701

1 it for communication between TDM and IP.

2 Q. Does this analysis or this testimony from
3 Mr. Yildirim also support your literal analysis?

4 A. Yes, it does. Going back to the literal case
5 that it is an ATM interworking multiplexer, what he's
6 saying is that from the start, this box was designed to
7 be an ATM box. And when it came time to use it for
8 Voice over IP, they kept the same basic functionality,
9 simply added the IP functionality. The ATM on the
10 backplane remained.

11 Q. Dr. Wicker, to what extent is the use of IP and
12 ATM in networks such as these and equipment such as this
13 a design choice?

14 A. It's a design choice in the sense that when
15 you're looking to design a box, you're going to make
16 decisions about what kind of backplane to use, what kind
17 of technologies to use. And as we've seen, there are
18 different options. In this case ATM was a design
19 choice.

20 Q. Did you rely on Mr. Yildirim's testimony on this
21 point as well?

22 A. Yes. He was asked -- asked -- excuse me -- the
23 specific question. It was just a design choice by
24 Cisco, the use of ATM across the backplane?

25 Yes. Just leveraged that what we already had

Page 703

1 those particular steps in terms of the function, the way
2 and the result?

3 A. Yes, I will.

4 Q. Okay. We can move forward now to the next set of
5 patents. And these are the claims actually of the
6 broadband patents. So Slide 164, we have the three
7 broadband patents that are asserted in the case. Can
8 you explain just to the jury a summary of what you did,
9 what your analysis was and conclusions as to these
10 particular claims of the broadband patents?

11 A. Okay. So we have three different claims --
12 excuse me. We have three different patents, the 064,
13 the 429 and the 084. Each one of these patents has a
14 relatively small number of asserted claims, three for
15 the 064, three for the 429 and two for the 084.

16 So what I did was I looked at these claims, and
17 then I determined whether or not Time Warner Cable's
18 outbound and inbound call processing infringed or did
19 not infringe, and I found they did infringe these
20 claims.

21 Q. Okay. So let's start with Claim 1 of the 064
22 patent. So, Dr. Wicker, this is an outbound call?

23 A. Yes.

24 Q. Okay. And the first step -- I'm sorry. This is
25 a method claim as well?

Page 702

1 instead of spending more and building something new.

2 So he took his ATM switch and adapted it rather
3 than starting over again.

4 Q. So based on all the evidence you just discussed
5 regarding the 8880, what is your conclusion as to
6 whether or not Time Warner Cable's media gateway
7 constitutes an ATM interworking multiplexer under the
8 doctrine of equivalents?

9 A. Okay. This notion of it being a design choice
10 points to known interchangeability. Being able to pull
11 cards in and out points to known interchangeability.
12 This is telling me that the ATM interworking multiplexer
13 and the MGX8880 are equivalent under the doctrine of
14 equivalents. So the differences are insubstantial.

15 Q. If we go to the next slide, we have a checkmark.
16 I see that you've checked the box indicating your
17 opinion in that regard?

18 A. Yes.

19 Q. Now, did you also consider the question of
20 equivalents in the context of the function-way-result
21 test that you mentioned?

22 A. Yes, I did.

23 Q. And as we go through the claim steps in the
24 remaining claims that implicate the -- the interworking
25 unit claim term, will you provide your analysis for

Page 704

1 A. Yes, it is. All of our claims are method claims.

2 Q. Yes, sir. The first step is receiving setup
3 signaling associated with the call into a processing
4 system. What evidence did you consider as to Time
5 Warner's CMS network as to the first step of Claim 1 of
6 the 064 patent?

7 A. Okay. So just to remind you, it's an outbound
8 call. So it's a subscriber of Time Warner's network
9 making a call to someone on the PSTN. So then I have
10 this claim language, claim step, receiving setup
11 signalling associated with the call into a processing
12 system.

13 So you've seen this evidence already because then
14 the question is, are we receiving setup signaling into
15 our call processing system. Yes, we are. Mr. Cannon
16 testifies that the user dials the telephone number, the
17 telephone attached to this eMTA. The message gets
18 relayed to the CMS. Then the CMS sends media gateway
19 control protocol-based messaging back down to the eMTA
20 to select an IP address and port.

21 So we receive this dialed telephone number into
22 our call processing system, in this case the CMS.

23 Q. And you relied on Mr. Cannon's testimony for
24 that?

25 A. Yes, I did.

1 UNITED STATES DISTRICT COURT
2 DISTRICT OF KANSAS

3 SPRINT COMMUNICATIONS
4 COMPANY, LP,

Docket No. 11-2686

5 Plaintiff,
6 v.

Kansas City, Kansas

7 TIME WARNER CABLE, INC.,
8 ET AL.,

Date: 2/27/2017

9 Defendants.
10

Volume 10 - AM Session

11 TRANSCRIPT OF JURY TRIAL
12 BEFORE THE HONORABLE JOHN W. LUNGSTRUM
13 SENIOR UNITED STATES DISTRICT COURT JUDGE

14 APPEARANCES:

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1 application that ultimately resulted in the patent. So,
2 again, because of a constructive reduction to practice,
3 conception is not at issue here. So, again, because the
4 specification is adequately clear, there's no need for
5 us to introduce extrinsic evidence of what one employee
6 may or may not have thought at the time of invention.

7 THE COURT: Let me clarify one more thing.
8 Apparently I was incorrect, based upon Sprint's
9 representation, that Dr. Min -- concerning Dr. Min's
10 reliance on Gardner. Was Sprint unaware of the reliance
11 on Gardner when they made that representation last week?

12 MR. SCHLETZBAUM: Sure. I had that same
13 question. I think we went back and looked at it. I
14 don't know that we were definitively clear on whether or
15 not it was included in his report, and I apologize if
16 that was not clear.

17 Dr. Min does cite to Mr. Gardner's testimony in
18 his expert report. I think at the time we were confused
19 whether or not that citation related to this ATM switch
20 issue.

21 There is a section in Dr. Min's report where he
22 cites to Mr. Gardner and Mr. Setter and a bunch of
23 extrinsic deposition testimony to show the ATM and IP
24 issues are not equivalent. And so our understanding at
25 that time was that, you know, if he cites to

2087

1 Mr. Gardner, it was for the purposes of showing ATM and
2 IP as equivalent, or not the same technology.

3 As Time Warner pointed out, there are other
4 citations mixed in throughout the report where Dr. Min
5 does rely on Gardner's testimony as to whether or not an
6 ATM switch existed at the time.

7 THE COURT: All right. Thank you,
8 Mr. Schletzbaum. Who speaks for Time Warner?

9 MR. BENYACAR: David Benyacar, Your Honor.
10 So I believe as counsel just admitted, indeed Dr. Min
11 does rely on the testimony of Mr. Gardner on the exact
12 point of whether or not ATM switches existed at the time
13 that could perform the functions that Mr. Christie
14 ascribes to them in the specification. And really all
15 we're asking today is that Dr. Min be able to testify to
16 exactly what's contained in his expert report. Really
17 nothing more.

18 Counsel says that there really is no dispute that
19 Mr. Christie had full conception of these embodiments
20 that use these ATM switches because he says things that
21 the switches are supposed to do, but the fact of the
22 matter is that Mr. Gardner does not disclose a new ATM
23 switch in the specification. He assumes those switches
24 exist and says they'll do --

25 THE COURT: Pardon me, you mean Mr. Christie

2088

1 and the patent?

2 MR. BENYACAR: Mr. Christie and the patent,
3 yes, sir. And he assumes that those things exist; and,
4 in fact, the fact of the matter is that the invention of
5 the broadband patents is a recognition that the call
6 control patents wouldn't work because those switches
7 didn't exist, so we need to think of another way to do
8 it, and that's what's disclosed in the broadband
9 patents, and that's the subject matter that Dr. Min is
10 going to testify about.

11 Counsel for Sprint says, well, it's really
12 irrelevant because written description is supposed to be
13 ascertained from the four corners of specification. But
14 as we know, Your Honor, the specification is supposed to
15 be read as one of skill in the art would understand it.
16 And as Dr. Min, as one of skill in the art understands
17 it, those embodiments disclosed in the call control
18 patents would not work because Mr. Christie assumed the
19 technology existed which did not exist. Mr. Gardner,
20 one of Sprint's engineers, confirmed that those switches
21 did not exist. And that is evidence that those skilled
22 in the art, including Dr. Min and Mr. Gardner, would
23 understand that those embodiments would not work.

24 THE COURT: Let me ask this: To what extent
25 does your argument cross over into enablement?

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1 MR. BENYACAR: It does not cross into
2 enablement at all, Your Honor. We are not going to
3 argue that the claims are not enabled. What we're going
4 to say is that when an inventor relies on a technology
5 that those skilled in the art understand did not exist,
6 those skilled in the art would understand, from the
7 specification, that the inventor was not in possession
8 of the invention because he -- there is no way to do it.
9 And that's the case law with regard to a wish and a
10 plan.

11 Mr. Christie had a wish or an assumption that
12 technology existed, and then describes an invention,
13 assuming that that technology was in place when, in
14 fact, it was not. And because the technology was not in
15 place, those skilled in the art would understand that
16 Mr. Christie was not actually in possession of the
17 invention at the time the application was filed.

18 THE COURT: Let me get Mr. Schletzbaum back
19 up for a moment, and I'll visit with you some more,
20 Mr. Benyacar. Thank you.

21 MR. SCHLETZBAUM: Yes, Your Honor.

22 THE COURT: Let me ask you this, in terms of
23 the -- the argument that the ATM switches -- that that
24 was something that did not exist in the art, what if
25 Mr. Christie had described an invention that said

2090

1 included in this is an antigravity device, describe --
2 and described it very clearly how this antigravity
3 device worked, all of this to be able to invent a
4 perpetual motion machine.

5 MR. SCHLETZBAUM: Sure.

6 THE COURT: He would have adequately
7 described an antigravity device perhaps. Was that
8 enough, even if we all would assume that that's probably
9 not going to work? How is that example like or unlike
10 the situation here posed by Time Warner?

11 MR. SCHLETZBAUM: Well, I think -- first of
12 all, I think it's a little unlike the situation because
13 it's -- you know, we're not talking about some
14 hypothetical antigravity situation. This is a real live
15 switch that people in the industry were working on to
16 develop, but I think --

17 THE COURT: Now, wait a minute, let me stop
18 you there. Okay. There -- there was no such thing as
19 an ATM switch at the time; is that correct?

20 MR. SCHLETZBAUM: Not -- not necessarily.
21 There was an ATM switch but not one that could do
22 call-by-call setup that we're talking about, a switch
23 virtual circuit.

24 THE COURT: So you say they were working on
25 it. What do you mean by that?

2091

1 MR. SCHLETZBAUM: Sure. So I think the
2 testimony from other inventors that we haven't put on in
3 the trial is that there were various companies that
4 Sprint was working with to actually build these devices
5 to work with Sprint's JCS2000 project.

6 But I think, to get back to your point as to
7 whether or not that's even relevant to the written
8 description requirement, if the inventor adequately
9 describes antigravity or an ATM switch, the test is
10 whether or not a person of ordinary skill in the art
11 reading that specification would understand the inventor
12 to be in possession of the invention.

13 Now, it doesn't matter if it is something that's
14 to be built later or hasn't existed before now. If the
15 inventor can describe it in such detail and how it
16 operates in the specification, then it's sufficient for
17 the written description requirement.

18 THE COURT: Then what is the significance of
19 the wish or plan language in Novozyme and Eli Lilly?

20 MR. SCHLETZBAUM: Sure. So I think in those
21 decisions it was more of in a pharmaceutical context
22 where they think basically this drug will do "x" or we
23 think we can build "x" to do "y." Here it's not a wish
24 or a plan. It's actual call flows are described in
25 great detail to make sure that the invention would

2092

1 operate as it's intended.

2 And Your Honor picked up on the same point that
3 we were just discussing at counsel's table is the idea
4 of whether or not this would operate with a -- with or
5 without a switch is really an enablement question. And
6 I think this issue is -- really does bleed over into 112
7 enablement questions that Dr. Min is not going to
8 testify to is my understanding.

9 THE COURT: This is hardly definitive, but
10 out of curiosity, Sprint did not attack Dr. Min's
11 opinion either through a Daubert motion or on summary
12 judgment or motion in limine. Dr. Min's opinion
13 certainly was not a surprise to Sprint apparently that
14 he relied on the absence of the ATM switch. Is that --
15 am I right in the understanding?

16 MR. SCHLETZBAUM: That's correct. We did
17 file a Daubert motion against Dr. Min in the Comcast
18 case.

19 THE COURT: Comcast but not in this case?

20 MR. SCHLETZBAUM: That's correct, Your
21 Honor.

22 THE COURT: And, you know, I might infer
23 from that that you didn't think there was anything wrong
24 with it at the time.

25 MR. SCHLETZBAUM: Well, frankly, we didn't

2093

1 -- you know --

2 THE COURT: I mean, and again, that may be
3 too broad. There's no rule that says you have to file a
4 Daubert motion about everything you don't like.

5 MR. SCHLETZBAUM: Sure. I guess our concern
6 is that, you know, the further we go down this path, as
7 we talked about yesterday, it's really an effort by them
8 to introduce JCS2000 into this case which we've made a
9 very conscious effort to exclude. And so to the extent
10 he's going to testify about Mr. Gardner's belief at the
11 time in relation to JCS2000, that's going to force our
12 hand to bring in additional evidence to rebut that
13 testimony.

14 THE COURT: All right. Let me get
15 Mr. Benyacar back up again.

16 Mr. Benyacar, tell -- tell me again why you think
17 this isn't really enablement that you're discussing.

18 MR. BENYACAR: Certainly, Your Honor. Let's
19 take the antigravity machine example that Your Honor
20 used. If a specification that said there's an
21 antigravity machine and this is the way I'm going to use
22 it, here's all the things I'm going to do with this
23 antigravity machine, and your invention is use the
24 antigravity machine for functions A, B and C, well,
25 those skilled in the art, including those in this room,

2094

<p>1 would understand there is no such antigravity machine, 2 so it cannot be that the inventor was in possession of 3 an invention which could actually perform those 4 functions because the inventor was assuming a technology 5 that did not exist. And that's the mere wish or plan. 6 There's really no difference between the example 7 counsel cited about a drug that you hope will do 8 something, which is the example counsel cited. Here 9 there's a switch which he hoped existed that would do 10 something, but it didn't. 11 THE COURT: Now, Mr. Schletzbaum says that 12 there would be evidence that if we go down this path 13 Sprint could put on to show that such a switch was in 14 development -- 15 MR. BENYACAR: So -- 16 THE COURT: -- whether it ultimately worked 17 or not. 18 MR. BENYACAR: So I want to be clear about 19 one thing. We absolutely do not intend to introduce any 20 evidence about JCS2000. Your Honor -- the court's 21 orders on that are crystal clear, and Dr. Min will not 22 discuss JCS2000 at all. It will be a very discrete 23 point, just about the existence of a technology at the 24 time. No reference to Sprint's commercialization 25 efforts. No reference to Sprint's prototypes. Just as</p> <p style="text-align: right;">2095</p>	<p>1 written description requirement is not satisfied. 2 THE COURT: Now, I'm sorry, Mr. Schletzbaum, 3 you may be heard. Then, Mr. Benyacar, you will 4 ultimately get the last word whenever that is since it's 5 your motion. 6 MR. SCHLETZBAUM: Your Honor, I think we've 7 kind of bled over into a second issue that we raised 8 with some of the demonstratives. And if you don't mind, 9 I'll hand you a copy. 10 THE COURT: That's fine. Thanks. 11 MR. SCHLETZBAUM: Again, these are the 12 demonstratives that Dr. Min intends to use during his 13 examination today. If you could look at Slide 16, this 14 claim construction issue, it becomes front and center 15 that you just raised with Mr. Benyacar. 16 You see in Slide 16 there's a distinction between 17 the specification and the claims. And in the 18 specification section, Time Warner Cable intends to have 19 -- it appears that Dr. Min's going to say that the 20 specification requires ATM virtual circuit telephone 21 company technology. Do you see that? 22 And that is exactly the type of claim 23 construction argument that Your Honor has already ruled 24 on as a matter of law that doesn't exist in the claims 25 as they're -- as construed.</p> <p style="text-align: right;">2097</p>
<p>1 a person of ordinary skill in the art, Mr. Gardner, 2 understood these switches didn't exist. Period. 3 THE COURT: Let me ask you one other 4 question -- or let me -- let me just pose to you a 5 concern I have, and that is, Time Warner has taken a 6 different position from the court on the extent to which 7 the invention is limited to ATM technology beyond the 8 ATM multiplexer in the one set of patents -- or the one 9 circumstance. And I am concerned that there is the 10 possibility of Time Warner's claim construction theory, 11 which is contrary to the court's ruling, right or wrong, 12 bleeding into Time Warner's case here. Now, can you 13 allay my concern in that regard? 14 MR. BENYACAR: Yes, Your Honor, I absolutely 15 can, and I will be as clear in allaying your concern as 16 I can possibly be. We do not intend to argue that the 17 claims of the call control patents require these ATM 18 switches or ATM technology. The exact opposite is true. 19 We intend to tell the jury the claims do not require ATM 20 technology, but the written description requirement 21 requires an alignment between the claims and the 22 specification. 23 So we intend to be very clear with the jury about 24 what Your Honor's claim construction is. They do not 25 require ATM. We say the spec does, and that's why the</p> <p style="text-align: right;">2096</p>	<p>1 THE COURT: All right. Let's -- 2 MR. SCHLETZBAUM: Slide 27 has a similar 3 issue as well. 4 THE COURT: 16 and 27? 5 MR. SCHLETZBAUM: Yeah, 27 also quotes the 6 terms identifier, asynchronous communication and routing 7 as all limited to ATM-type technology. Again, each of 8 these claim construction positions has been directly 9 rejected by Your Honor. 10 THE COURT: All right. Thank you. 11 Mr. Benyacar. 12 I'm sorry. One other question for 13 Mr. Schletzbaum. Is it -- is it correct that the only 14 embodiment that's shown in the Christie patents uses the 15 ATM switch in question? 16 MR. SCHLETZBAUM: I believe that's correct, 17 Your Honor. I believe that the drawings show the ATM 18 switch. 19 THE COURT: Does the fact that the only 20 embodiment shows that limit for written description 21 purposes in any way the specification issue? 22 MR. SCHLETZBAUM: No, Your Honor. So the 23 specification describes that embodiment in broad terms. 24 It uses words like broadband packet network, switching 25 capability. So to the extent that the figure is showing</p> <p style="text-align: right;">2098</p>

<p>1 an ATM embodiment, as Your Honor looked at it during 2 claim construction, there is no limiting language that 3 that is the only idea that Mr. Christie had possessed. 4 THE COURT: All right. Thank you. Now let 5 me go back to you, Mr. Benyacar. 6 MR. BENYACAR: Thank you, Your Honor. The 7 slide that counsel has up, I believe, is an example of 8 what -- exactly what I promised Your Honor a minute ago 9 with respect to not saying anything to the jury that 10 would contradict Your Honor's construction of the claims 11 of the call control patents, for example that they don't 12 require ATM. 13 This is -- these slides are clearly broken up to 14 show what does the specification teach. That's not what 15 Your Honor construed. Your Honor construed the claims, 16 of course. And then the claims, and we make it very 17 clear the claims are not limited to ATM. The 18 specification only discloses ATM. So I -- we set it up 19 this way specifically to make very clear to the jury we 20 are not contradicting Your Honor's claim constructions. 21 In fact, we are affirmatively relying on them to show 22 the -- the incongruity between the specification and the 23 claims. 24 THE COURT: All right. Thank you. Is 25 Dr. Min your first witness?</p> <p style="text-align: right;">2099</p>	<p>1 don't know exactly what Time Warner's concern is there. 2 THE COURT: All right. Well, let's hear 3 from Time Warner then. Okay. Thank you. 4 MR. BENYACAR: Thank you, Your Honor. The 5 issue with respect to Dr. Houh -- and just to respond to 6 Your Honor's timing question, I believe these two are 7 the only ones that are pressing for this morning. I 8 believe Your Honor asked a question about timing of the 9 different issues. 10 The issue with Dr. Houh is throughout the course 11 of this case Sprint has been asserting that it was 12 entitled not to the filing date of the patents but to 13 this October 1993 date, which -- which they allege was 14 the conception date and then a diligence in reducing to 15 practice. And we developed our case accordingly, for 16 example, through the testimony of Mr. Schessel. 17 In its motion with respect to Mr. Gardner on 18 Friday, in order to advocate that Mr. Gardner's 19 testimony was not necessary, what Sprint said is, we're 20 not going to rely on any reduction to practice, we're 21 just going to accept the filing date of the patents, and 22 so Mr. Gardner's testimony is irrelevant because you 23 don't need to know what we actually did, all we're going 24 to rely on the filing date. 25 And that's fine. And they prevailed on that</p> <p style="text-align: right;">2101</p>
<p>1 MR. BENYACAR: He is very early. He could 2 be within an hour. 3 THE COURT: Thank you. Let's -- let's talk 4 at least about how we might deal with this time-wise, 5 about the other issues that were raised in the e-mail 6 that Mr. Campbell sent to Ms. Scheurer this morning. Do 7 you want to speak to those? Who's speaking on behalf -- 8 MR. SCHLETZBAUM: I'll refer to Mr. Reckers 9 on behalf of -- 10 THE COURT: For Dr. Houh -- how is it -- 11 MR. BENYACAR: It's Dr. Houh, Your Honor. 12 THE COURT: Houh. Dr. Houh. Thank you. 13 MR. RECKERS: Yes, Your Honor. I think the 14 e-mail indicated that Time Warner wanted some kind of 15 holding that Sprint's estopped from challenging some 16 piece of prior art on the basis of the fact that we're 17 not going to try to swear behind a conception date. 18 We're not planning on offering evidence of the '93 19 conception document because we can't get -- we can't get 20 all the way behind Vision O.N.E. because they filed the 21 thing in '92. 22 So I don't know what the dispute is or why we 23 should be estopped from doing anything. We're not 24 intending to push our date back to '93. I don't know 25 that there's anything else we need to do on that. I</p> <p style="text-align: right;">2100</p>	<p>1 argument on the Gardner issue, but that impacts which 2 art Dr. Houh is going to present. So if they were 3 relying on the 1993 date, there would be a number of 4 pieces of art that go back further. If they're going to 5 rely on the filing date, we can significantly cut back 6 on the art that we're relying on because the published 7 patent application of Mr. Schessel itself would be prior 8 art. 9 So all we did was ask Sprint's counsel, after 10 Friday's motion, please confirm that you are not -- no 11 longer alleging a 1993 date but you are only going to 12 rely on the filing dates of the patents because we need 13 that to know what Dr. Houh is going to testify to, and 14 we never got a response. And that's why we're here on 15 this issue today. 16 THE COURT: All right. Let's have 17 Mr. Reckers back up again. 18 MR. RECKERS: Just for context, Your Honor, 19 on Friday they had five pieces of prior art they 20 identified for this trial and under the 102(g) theory. 21 After the weekend they dropped the 102(g) but, you know, 22 I don't know that any of this is germane to our 23 discussion. We've said that we're not going to swear 24 behind to '93. Some of the art that they've dropped 25 are --</p> <p style="text-align: right;">2102</p>

SPRINT COMMUNICATIONS COMPANY, LP vs.
TIME WARNER CABLE, INC., et al.

Volume 11 -- PM SESSION
February 28, 2017

<div>1UNITED STATES DISTRICT COURT DISTRICT OF KANSAS</div> <div>2SPRINT COMMUNICATIONS 3COMPANY, LP,</div> <div>4Plaintiff, 5v.</div> <div>6TIME WARNER CABLE, INC., 7ET AL.,</div> <div>8</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div>	<div>1THE COURT: We're back in session.</div> <div>2But outside the hearing of the jury, we can take up</div> <div>3that issue that was brought up before lunch,</div> <div>4Mr. Reckers.</div> <div>5MR. RECKERS: Dr. Wickers' rebuttal</div> <div>6will be addressing Vision One theories submitted by</div> <div>7Time Warner in their case in chief. The dispute</div> <div>8arises regarding several concept papers that</div> <div>9Mr. Schessel addressed on his direct testimony. We</div> <div>10are going to -- these are from '91 and '92 which is</div> <div>11the exact time frame which Time Warner says for their</div> <div>12system-based theory, which is the theory they've</div> <div>13advanced, shows the progress that they had as to the</div> <div>14Vision One conception. These are within months of</div> <div>15the documents that their expert relied on, the</div> <div>16alleged publication in '91 and the patent application</div> <div>17in '92, so they were within months of the documents</div> <div>18they are relying on. They were discussed on direct</div> <div>19with Mr. Schessel in their case in chief, we are not</div> <div>20going to be arguing about the fact they never</div> <div>21commercialized these concepts. We are looking at, in</div> <div>221991, what did Schessel even have and that's relevant</div> <div>23to what's in the disclosure because the</div> <div>24contemporaneous documents say they didn't have the</div> <div>25broadband requirement, which is exactly our point.</div>
<div>1APPEARANCES: (continued)</div> <div>2</div> <div>3Stephanie Grace</div> <div>4Jake Ryan</div> <div>5Latham & Watkins, LLP</div> <div>612670 High Bluff Drive</div> <div>7San Diego, CA 92130</div> <div>8</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div>	<div>1Within months of the patent application they have</div> <div>2another document that says, hey, we have all these</div> <div>3phases, we're working on Phase 1 now and later we'll</div> <div>4do 6 and 7. They're the once that relate to the</div> <div>5technology that they claim is disclosed in the patent</div> <div>6application. They're very probative as to what they</div> <div>7actually had in the time frame and relevant to</div> <div>8respond to Mr. Schessel's direct testimony and</div> <div>9Dr. Houh's theories as to the two documents that were</div> <div>10allegedly published about the same time. That's our</div> <div>11position, that we should be able to use the documents</div> <div>12to show that at the time they didn't actually have</div> <div>13the details that Dr. Houh and Mr. Schessel stated</div> <div>14they had.</div> <div>15THE COURT: Remind me again or take me</div> <div>16back to what the documents in question are.</div> <div>17MR. RECKERS: Let me was out of</div> <div>18slides. It starts slide four, goes on to about 11.</div> <div>19THE COURT: Is this an internal</div> <div>20document?</div> <div>21MR. RECKERS: It is the internal</div> <div>22Siemens document, Your Honor, that was introduced</div> <div>23into evidence by Mr. Schessel for the purpose of</div> <div>24showing that they had possession in his view of some</div> <div>25set of technical subject matter.</div>

<p style="text-align: right;">Page 2740</p> <p>1 A. Yes. Again, I don't agree the 2 question remains. I think we've answered it, but 3 that is an important question. 4 Q. Fair enough. You have your answer to 5 the question, of course, we have a different answer. 6 My question simply was that's the question all of us 7 have to address here? 8 A. That's correct. 9 Q. Now, when you do a written description 10 analysis and you've done many, many before this day, 11 right? 12 A. That's correct. 13 Q. What is the single most important 14 thing for an expert to look at when evaluating a 15 written description? 16 A. Determine whether there's adequate 17 disclosure for a person of skill to understand that 18 the inventor was in possession of the invention. 19 Q. What I'm asking you is what is the 20 single most important piece of evidence that you need 21 to look at to answer that question? 22 A. Oh, I understand. The written 23 description. 24 Q. And by written description you're 25 referring to the actual specification of the patent?</p>	<p style="text-align: right;">Page 2742</p> <p>1 Q. You're not surprised by that. Why 2 don't we look at that one. It's 29. This slide 29 3 is a quote from the '084 patent at column ten, lines 4 57 through 58 and another quote from column 11, lines 5 21 through 28; do you see that? 6 A. Yes, I do. 7 Q. And you talked about the fact that 8 this refers to TCP slash IP, right? 9 A. That's correct. 10 Q. Now, you're not intending to convey 11 the impression to the jury that the broadband patents 12 discussed using IP for the voice, are you? 13 A. This is not a specific disclosure of 14 IP being used for voice. It's a specific disclosure 15 being used for signalling. 16 Q. Here the IP, I think you can see it if 17 you just read it, it says on the line, don't have 18 line numbers here, Ethernet while supporting TCP/IP 19 which transfers signalling messages, right? 20 A. That's correct. 21 Q. So it's not talking here now about 22 using IP for voice? 23 A. No, not in this section. 24 Q. And you weren't hoping that people 25 would be confused and see TCP/IP and think, oh, the</p>
<p style="text-align: right;">Page 2741</p> <p>1 A. That's correct. 2 Q. Now, I want to focus on the broadband 3 patents for a moment. You have 49 slides on written 4 description, right, that you just testified to about 5 today, right? 6 A. Again, I'll take your word for that. 7 Q. Okay. Well, the last page says 49. 8 So I want to ask you how many of these slides showed 9 figures from the broadband patents? 10 A. I don't believe I used figures from 11 the broadband patents. 12 Q. So that would be zero, right? 13 A. Yes, I think that's right. 14 Q. How many of these slides contained 15 text from the broadband patents? 16 A. I believe there was a handful. I 17 don't recall the number. 18 Q. Maybe you can show us the handful. 19 Because I don't see a handful. 20 A. I actually haven't done that analysis. 21 I don't know how many of my slides quoted from one 22 group of patents as opposed to another. 23 Q. Would you be surprised to learn that 24 it's only one? 25 A. No, I would not be surprised.</p>	<p style="text-align: right;">Page 2743</p> <p>1 broadband patents were talking about voice? 2 A. No, I've tried to be as clear as 3 possible. 4 Q. When you testified, did you say, by 5 the way the TCP/IP is only for signalling, not for 6 voice? Did you point that out? 7 A. I mentioned TCP/IP was one of the many 8 kinds of signalling that was considered. I don't 9 believe I said this is an example of TCP/IP being 10 used for voice communication. 11 Q. That would be a pretty big deal if the 12 broadband patents said you can use TCP/IP for voice, 13 right? 14 A. If they explicitly said that, it would 15 have been helpful, yes. 16 Q. It would be very helpful to what 17 you're trying to say, right? 18 A. It would have made the scope of the 19 disclosure more clear, but I still think it's clear. 20 Q. I understand. But, in fact, that is 21 your view but, in fact, if you look at the broadband 22 patents you won't find anywhere a statement that says 23 use IP for the voice, right? 24 A. No, it doesn't say that. 25 Q. Now, in the call control patents is</p>

<p style="text-align: right;">Page 2744</p> <p>1 ATM used as a method for setting up a path to carry 2 user communications? 3 A. Yes, it is. 4 Q. The call control patents describe 5 interconnecting TDM circuits to ATM virtual circuits, 6 right? 7 A. That's correct. 8 Q. And certainly ATM and circuit 9 switching are the primary technologies discussed in 10 the call control patents? 11 A. They're the primary examples provided. 12 Q. They are also the primary technologies 13 discussed in the patents? 14 A. That's correct. 15 Q. Now, when the call control patents 16 referred to examples of broadband networks, the only 17 examples provided are ATM, right? 18 A. That's correct. 19 Q. The call control patents talk 20 generally about broadband networks, but ATM is the 21 only example discussed? 22 A. That's right. 23 Q. Was there any discussion of any other 24 broadband technology in the call control patents 25 other than ATM?</p>	<p style="text-align: right;">Page 2746</p> <p>1 control patents in this case? 2 A. That's correct. 3 Q. In the entire call control patents 4 there's only one example of an actual broadband 5 switch that somebody could purchase, right? 6 A. That's correct. 7 Q. The one example of an actual broadband 8 switch that someone could purchase was a four systems 9 ASX, right? 10 A. I believe that's right, yes. 11 Q. And the four systems ASX is an ATM 12 broadband switch, right? 13 A. That's correct. 14 Q. Now, the call control patents refer 15 generally to all of the media between two switches, 16 right? 17 A. Can you rephrase the question? I'm 18 not sure what you're getting at. 19 Q. That's fine, and if you want to look 20 at the patent so you can follow me, I'll give you a 21 cite. So Exhibit 2, column 5, lines 3 through 5. 22 A. Thank you. 23 Q. There is a reference there to all of 24 the media between two switches; do you see that? 25 A. Yes.</p>
<p style="text-align: right;">Page 2745</p> <p>1 A. Yes. There was a discussion of 2 different kinds of identifiers that, for example, 3 would have been associated with IP. 4 Q. Dr. Wicker, do you remember me asking 5 you this precise question at your deposition? 6 A. Not exactly, but I'm sure you did. 7 Q. What I asked you was, I'm going to 8 confirm this, should be in your binder, a deposition 9 that took place on June 12, 2015. 10 A. Can you tell me what tab it would be 11 under because I'm not seeing it. 12 Q. Let me know when you're there. 13 A. Can you give me the page number again. 14 Q. Certainly. Page 411, lines 8 15 through 11. 16 A. I'm there. 17 Q. Did I ask you, was there any 18 discussion of any other broadband technology in the 19 6561 patent other than ATM? And was your answer no? 20 A. That's correct. 21 Q. And just so we're clear the question 22 was with respect to the 6561 patent, that patent is 23 referring to the '561 patent in this case, right? 24 A. That's correct. 25 Q. And the '561 patent is one of the call</p>	<p style="text-align: right;">Page 2747</p> <p>1 Q. The term "media" is another way of 2 saying connection, the connection between the network 3 elements, right? 4 A. Yes, that's right, in this context, 5 that's correct. 6 Q. And the call control patents explain 7 that the media or connection might correspond to a 8 virtual path in an ATM system or a trunk group in a 9 T-1 system, right? 10 A. That's correct. 11 Q. A trunk group in a T-1 system is like 12 a DS0? 13 A. No. A trunk group would contain DS0. 14 Q. I misspoke. You're absolutely right. 15 A trunk group contains a bunch of DS0s? 16 A. Lots of them. 17 Q. And the DS0's, this is TDM? 18 A. That's correct. 19 Q. So this is not talking here about IP, 20 right? 21 A. Not in this example, no. 22 Q. Now, the call control patents refer to 23 B-ISDN numerous times, right? 24 A. That's correct. 25 Q. And B-ISDN stands for broadband ISDN?</p>

EXHIBITS 23-25

**REDACTED IN
THEIR ENTIRETY**